

# Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

## Monthly Progress Report July 2006

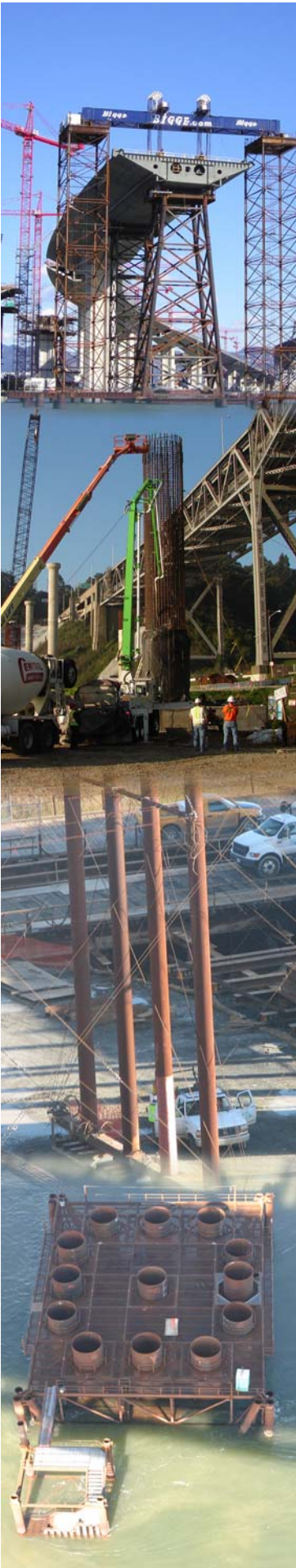


TOLL BRIDGE PROGRAM  
OVERSIGHT COMMITTEE

CALTRANS · BAY AREA TOLL AUTHORITY · CALIFORNIA TRANSPORTATION COMMISSION

Released: August 2006

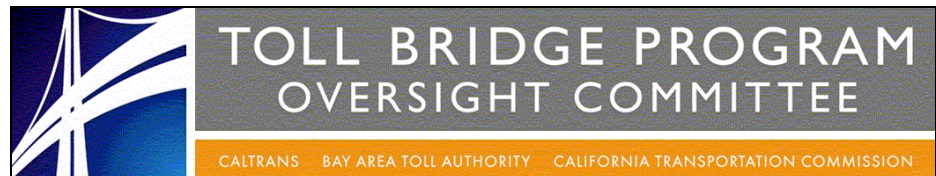




# Toll Bridge Seismic Retrofit and Regional Measure 1 Programs

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## Monthly Progress Report July 2006

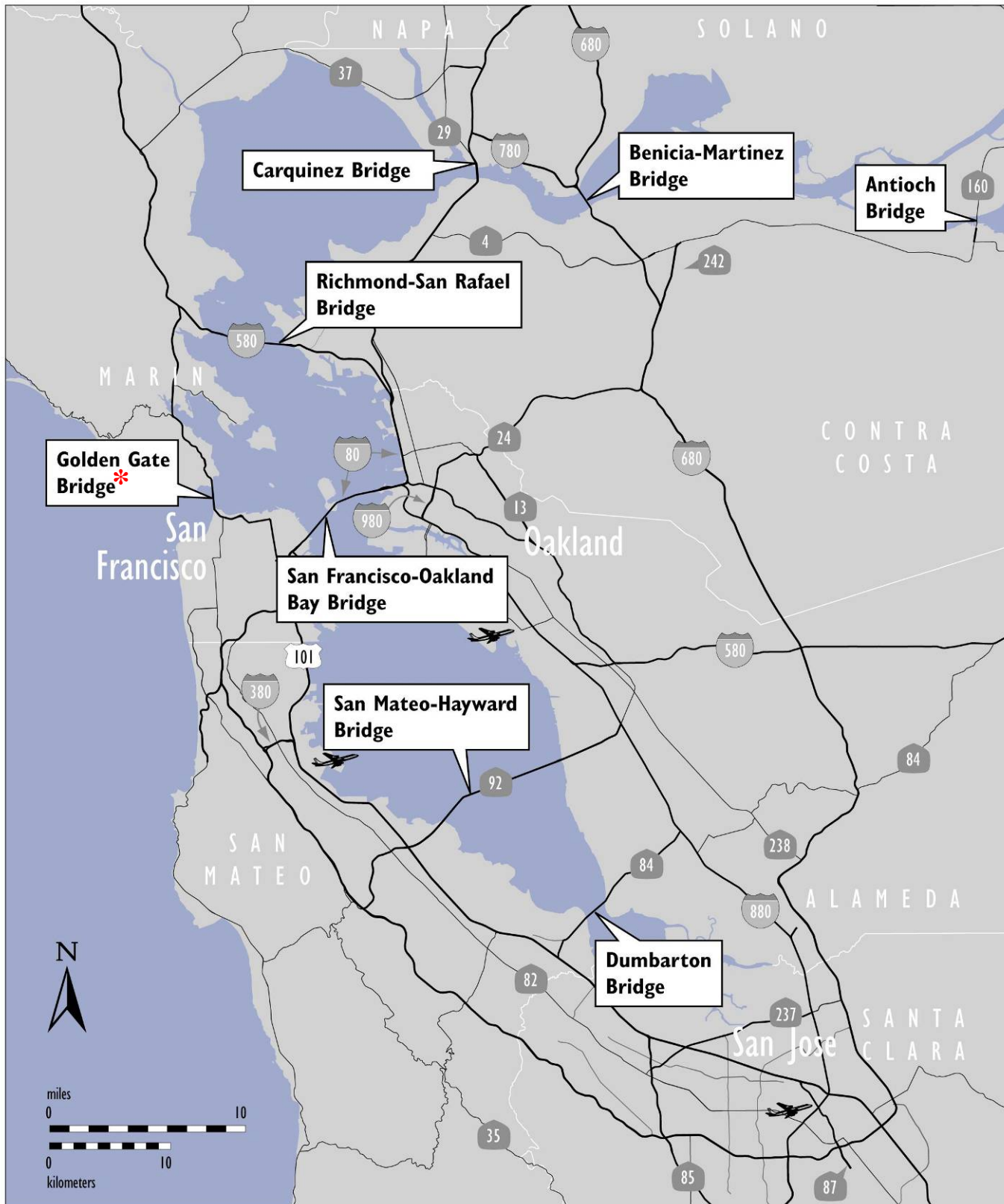




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## Toll Bridges of the San Francisco Bay Area



\* Under the Jurisdiction of the Golden Gate Bridge, Highway and Transportation District

## INTRODUCTION

In July 2005, Assembly Bill 144, Hancock (AB 144) created the Toll Bridge Project Oversight Committee (TBPOC) to implement a project oversight and project control process for the Benicia-Martinez Bridge project and the state toll bridge seismic retrofit program projects. Comprised of the Caltrans Director, the Bay Area Toll Authority (BATA) Executive Director and the Executive Director of the California Transportation Commission (CTC), the TBPOC's project oversight and control processes include but are not limited to reviewing bid specifications and documents, providing field staff to review ongoing costs, reviewing and approving significant change orders and claims in excess of \$1 million (as defined by the committee) and preparing project reports.

AB 144 identified the Toll Bridge Seismic Retrofit Program and the new Benicia-Martinez Bridge Project as under the direct oversight of the TBPOC. The Toll Bridge Seismic Retrofit Program includes:

Toll Bridge Seismic Retrofit Projects	Seismic Safety Status
San Francisco-Oakland Bay Bridge East Span Replacement	Construction
San Francisco-Oakland Bay Bridge West Approach Replacement	Construction
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit	Complete
San Mateo-Hayward Bridge Seismic Retrofit	Complete
Richmond-San Rafael Bridge Seismic Retrofit	Complete
Eastbound Carquinez Bridge Seismic Retrofit	Complete
Benicia-Martinez Bridge Seismic Retrofit	Complete
San Diego-Coronado Bridge Seismic Retrofit	Complete
Vincent Thomas Bridge Seismic Retrofit	Complete

The new Benicia-Martinez Bridge is part of a larger program of toll-funded projects, called the Regional Measure 1 (RM1) Toll Bridge Program, under the responsibility of the BATA. While the rest of the projects in the RM1 program are not directly under the responsibility of the TBPOC, BATA and Caltrans (CT) will continue to report on their progress as an informational item. The RM1 program includes:

RM1 Projects	Open to Traffic Status
New Benicia-Martinez Bridge	Construction
1927 Carquinez Bridge Demolition	Construction
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	Construction
Interstate 880/State Route 92 Interchange Reconstruction	Design
Richmond-San Rafael Bridge Trestle, Fender & Deck Joint Rehabilitation	Open
Westbound Carquinez Bridge Replacement	Open
San Mateo-Hayward Bridge Widening	Open
State Route 84 Bayfront Expressway Widening	Open
Richmond Parkway	Open

This report focuses on identifying critical project issues and monitoring project cost and schedule performance for the projects as measured against approved budgets and schedule milestones. This report is intended to fulfill Caltrans' requirement to provide monthly project progress reporting to the TBPOC under Section 30952.05 of the Streets and Highway Code.

## EXECUTIVE SUMMARY

## Toll Bridge Seismic Retrofit Program—Cost (\$Millions)

Project	Work Status	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast*	At-Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>SFOBB East Span Replacement Project</b>								
Capital Outlay Support		959.4	-	959.4	435.3	977.1	17.7	●
Capital Outlay Construction								
Skyway	Construction	1,293.0	-	1,293.0	1,032.8	1,293.0	-	●
SAS E2/T1 Foundations	Construction	313.5	-	313.5	144.8	313.5	-	●
SAS Superstructure	Construction	1,753.7	-	1,753.7	67.6	1,767.4	13.7	●
YBI Transition Structures	Design	299.3	-	299.3	-	318.5	19.2	●
Oakland Touchdown (OTD)		283.8	-	283.8	-	272.7	(11.1)	
* OTD Submarine Cable	Design				-	9.6	-	●
* OTD No. 1 (Westbound)	Design				-	196.7	-	●
* OTD No. 2 (Eastbound)	Design				-	62.0	-	●
* OTD Electrical Systems	Design				-	4.4	-	●
YBI South/South Detour	Design/Const	131.9	-	131.9	33.7	133.7	1.8	●
Existing Bridge Demolition	Design	239.2	-	239.2	-	222.0	(17.2)	●
Stormwater Treatment Measures	Construction	15.0	-	15.0	1.3	15.0	-	●
East Span Completed Projects		90.3	-	90.3	89.2	90.3	-	
Right-of-Way and Environmental Mitigation		72.4	-	72.4	38.8	72.4	-	●
Other Budgeted Capital		35.1	-	35.1	-	11.0	(24.1)	
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	-	<b>5,486.6</b>	<b>1,843.5</b>	<b>5,486.6</b>	-	
<b>SFOBB West Approach Replacement</b>	Construction							●
Capital Outlay Support		120.0	-	120.0	79.2	120.0	-	
Capital Outlay Construction		309.0	-	309.0	196.1	309.0	-	
<b>Total SFOBB West Approach Replacement</b>		<b>429.0</b>	-	<b>429.0</b>	<b>275.3</b>	<b>429.0</b>	-	
<b>Richmond-San Rafael Bridge Retrofit</b>	Construction							●
Capital Outlay Support		134.0	-	134.0	125.3	127.0	(7.0)	
Capital Outlay Construction		780.0	-	780.0	663.8	698.0	(82.0)	
<b>Total Richmond-San Rafael Bridge Retrofit</b>		<b>914.0</b>	-	<b>914.0</b>	<b>789.1</b>	<b>825.0</b>	<b>(89.0)</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		219.8	-	219.8	219.4	219.8	-	
Capital Outlay Construction		705.6	-	705.6	698.3	705.6	-	
<b>Total Program Completed Projects</b>		<b>925.4</b>	-	<b>925.4</b>	<b>917.7</b>	<b>925.4</b>	-	
<b>Miscellaneous Program Costs</b>		30.0	-	30.0	24.5	30.0	-	
<b>Program Contingency</b>		900.0	-	900.0	-	989.0	89.0	
<b>Total Toll Bridge Seismic Retrofit Program</b>		<b>8,685.0</b>	-	<b>8,685.0</b>	<b>3,850.1</b>	<b>8,685.0</b>	-	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

\* Cost forecasts are as of June 30, 2006. Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

## Toll Bridge Seismic Retrofit Program—Schedule

Project	AB 144 / SB 66 Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Project Complete Schedule Forecast (06/2006)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d = b + c	e	f = e - d	g	h
SFOBB East Span Replacement Project Skyway	Apr 07	-	Apr 07	Apr 07	-	●	A schedule extension due to hinge pipe beam fabrication, service platforms electrical appurtenances, polyester concrete, etc., is currently under evaluation and subject to negotiations with the contractor. Forecast completion date is TBD.
SAS E2/T1 Foundations	Jun 08	(3)	Mar 08	Mar 08	-	●	
SAS Superstructure	Mar 12	12	Mar 13	Mar 13	-	●	Contract executed on May 3, 2006. See Note 1.
YBI Transition Structures	Nov 13	12	Nov 14	Nov 14	-	●	In March 2006, the TBPOC approved the split of the YBI contract into three contracts. Schedules and estimates for the split contracts are being developed.
Oakland Touchdown (OTD)	Nov 13	12	Nov 14	Nov 14	-	●	
• OTD Submarine Cable	n/a		Jul 07	Oct 07	3	●	Advertise date postponed pending execution of cooperative agreement with City of San Francisco.
• OTD Westbound	n/a		Jul 09	Oct 09	3	●	Advertise date postponed to provide additional time for utility coordination and contract formation.
• OTD Eastbound	n/a		Nov 14	Nov 14	-	●	See Note 1.
YBI South/South Detour	Jul 07	-	Jul 07	Jul 07	-	●	Schedule is being assessed. Forecast completion date is TBD.
Existing Bridge Demolition	Sep 14	12	Sep 15	Sep 15	-	●	See Note 1.
Stormwater Treatment Measures	Mar 08	-	Mar 08	May 07	(10)	●	Forecast based on actual award date and duration in contractor's A+B bid.
Open to Traffic Date: Westbound	Sep 11	12	Sep 12	Sep 12	-	●	See Note 1.
Open to Traffic Date: Eastbound	Sep 12	12	Sep 13	Sep 13	-	●	See Note 1.
SFOBB West Approach Replacement	Aug 09	-	Aug 09	Aug 09	-	●	
Richmond-San Rafael Bridge							
• Seismic Retrofit	Aug 05	-	Aug 05	Oct 05	2	●	Seismic retrofit completed July 29, 2005. Formal acceptance of this contract on October 28, 2005. Project delayed due to NOAA Fisheries permit issues.
• Public Access Project	n/a	-	Dec 06	May 07	5	●	

Note 1: Schedules for selected projects and the Open to Traffic dates were extended by 12 months from the AB144/SB66 baseline schedule due to Addenda #5 and #7 on the SAS Superstructure contract.

## Regional Measure 1 Program—Cost (\$Millions)

Project	Work Status	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast*	At- Completion Variance	Cost Status
a	b	c	d	e = c + d	f	g	h = g - e	i
<b>New Benicia-Martinez Bridge Project</b>	Construction							●
Capital Outlay Support		157.1	24.8	181.8	152.3	181.8	-	
Capital Outlay Construction		861.6	143.1	1,004.7	838.6	1,004.7	-	
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.2	20.3	-	
Project Reserve		20.8	35.3	56.2	-	56.2	-	
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,003.1</b>	<b>1,263.0</b>	-	
<b>Carquinez Bridge Replacement Project</b>	Construction							●
Capital Outlay Support		124.4	(1.1)	123.3	116.5	123.2	(0.1)	
Capital Outlay Construction		381.2	3.3	384.5	359.5	384.3	(0.2)	
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-	
Project Reserve		12.1	(2.2)	9.9	-	10.2	0.3	
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	-	<b>528.2</b>	<b>485.9</b>	<b>528.2</b>	-	
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>	Construction							●
Capital Outlay Support		8.0	(3.5)	4.5	1.9	4.5	-	
Capital Outlay Construction		16.9	3.6	20.5	-	20.5	-	
Project Reserve		0.1	(0.1)	-	-	-	-	
<b>Total Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>		<b>25.0</b>	-	<b>25.0</b>	<b>1.9</b>	<b>25.0</b>	-	
<b>I-880/SR-92 Interchange Reconstruction</b>	Design							●
Capital Outlay Support		28.8	-	28.8	28.8	51.7	22.9	
Capital Outlay Construction		94.8	-	94.8	-	122.5	27.7	
Capital Outlay Right-of-Way		9.9	-	9.9	7.6	12.4	2.5	
Project Reserve		0.3	-	0.3	-	9.7	9.4	
<b>Total I-880/SR-92 Interchange Reconstruction</b>		<b>133.8</b>	-	<b>133.8</b>	<b>36.4</b>	<b>196.3</b>	<b>62.5</b>	
<b>Program Completed Projects</b>	Complete							
Capital Outlay Support		54.0	(0.5)	53.5	54.0	55.4	1.9	
Capital Outlay Construction		307.5	(1.1)	306.5	291.7	296.8	(9.7)	
Capital Outlay Right-of-Way		1.7	-	1.7	0.5	0.8	(0.9)	
Project Reserve		2.5	1.6	4.1	-	1.8	(2.3)	
<b>Total Program Completed Projects</b>		<b>365.7</b>	-	<b>365.7</b>	<b>346.2</b>	<b>354.8</b>	<b>(10.9)</b>	
<b>Total Regional Measure 1 Program</b>		<b>2,112.6</b>	<b>203.1</b>	<b>2,315.7</b>	<b>1,873.5</b>	<b>2,367.3</b>	<b>51.6</b>	

● Within Approved Current Schedule and Budget

● Potential Cost and Schedule Impacts: Possible future need for Program Contingency Allocation

● Known Cost and Schedule Impacts: Request for Program Contingency Allocation forthcoming

Note: Details may not sum to totals due to rounding effects.

\* Cost forecasts are as of June 30, 2006. Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.

## Regional Measure 1 Program—Schedule

Project	BATA Project Complete Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Project Complete Schedule Forecast (06/2006)	Schedule Variance (Months)	Schedule Status	Remarks
a	b	c	d= b + c	e	f= e - d	g	h
<b>New Benicia-Martinez Bridge Project</b>							
• New Benicia-Martinez Bridge	Dec 07	-	Dec 07	Dec 07	-	●	
• I-680/I-780 Interchange Replacement	Dec 07	-	Dec 07	Feb 08	2	●	Final electrical work to be completed after Bridge Open to Traffic.
• Open to Traffic Date	Dec 07	-	Dec 07	Dec 07	-	●	
<b>1927 Carquinez Bridge Demolition Project</b>	Dec 07	-	Dec 07	Sep 07	(3)	●	
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>	Jan 07	-	Jan 07	Jan 07	-	●	
<b>I-880/SR-92 Interchange Reconstruction</b>	Nov 10	-	Nov 10	Jun 11	7	●	Delay in the procurement of right-of-way is impacting the cost/schedule for this project. See page 45.

## Highlights of Project/Program Activities and TBPOC Actions for July 2006

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### Toll Bridge Seismic Retrofit Program

#### SFOBB East Span Seismic Replacement

- ◆ 100% of the segments have been cast at the Stockton pre-cast yard in support of the Skyway contract. (See page 10).
- ◆ American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF) has started mobilization on the SAS contract, as well as commencing with work on various administrative submittals and finalizing agreements with subcontractors and suppliers. (See page 14).

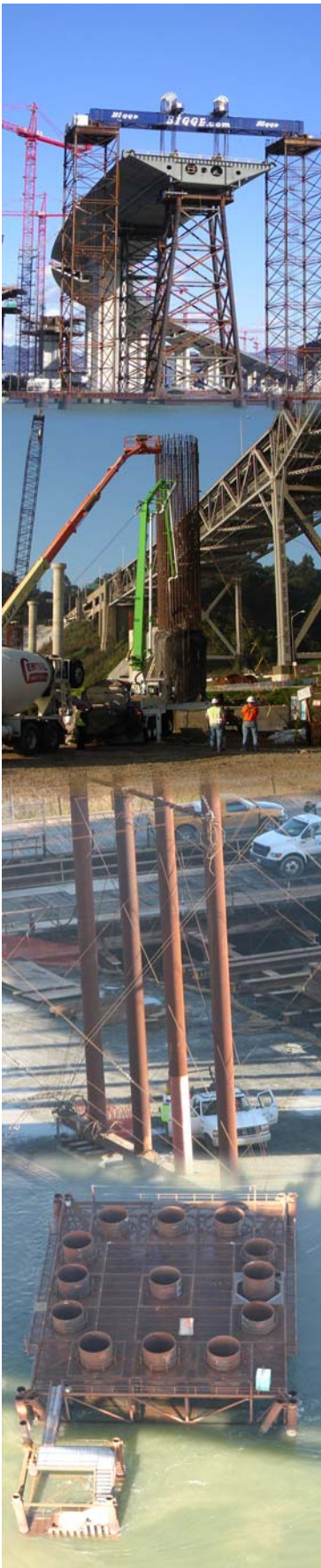
#### Other Toll Bridges

- ◆ On June 14, 2006, the Bay Area Toll Authority (BATA) approved the \$17.8 million required to proceed with a comprehensive seismic analysis of the Dumbarton and Antioch Bridges. (See page 31).

### Regional Measure 1 Program

#### Richmond-San Rafael Bridge Deck Overlay Project

- ◆ A pre-construction meeting is scheduled for July 11, 2006 to discuss the start-of-construction date with the contractor, California Engineers and Constructors. The estimated construction start is August 2006 (See page **Error! Bookmark not defined.**).



## PROJECT / CONTRACT REPORTS

### Toll Bridge Seismic Retrofit Program

#### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary

- Skyway Contract
- Self-Anchored Suspension (SAS) Superstructure Contract
- Self-Anchored Suspension (SAS) E2/T1 Foundations Contract
- Yerba Buena Island (YBI) South/South Detour Contract
- Other Major Contracts
- Other Contracts and Related Project Work

#### San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

#### Richmond-San Rafael Bridge Seismic Retrofit Project

#### Other Completed Seismic Retrofit Projects

## Toll Bridge Seismic Retrofit Program

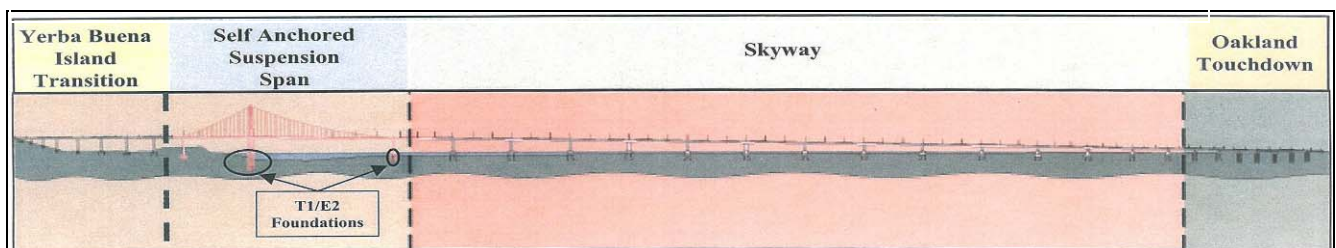
**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Summary**

**Project Description:** The East Span will be seismically retrofitted through the complete replacement of the existing span. The remaining effort for this project consists of the following contracts: Skyway—construction of two parallel concrete structures, each approximately 1.3 miles in length; Self-Anchored Suspension (SAS) Foundation—construction of SAS marine foundations; SAS Superstructure—construction of a self-anchored 385-meter main span superstructure incorporating a 160-meter fabricated structural steel tower with a main cable and inclined suspenders that will support steel orthotropic decks; Yerba Buena Island (YBI) South/South Detour—design and construction of a temporary double-deck bypass structure that will detour traffic to the existing SFOBB while completing the westerly permanent tie-in structure of the new East Span at Yerba Buena Island; YBI Structures—construction of a new structure connecting the western end of the self-anchored suspension to the Yerba Buena Island viaduct, which will be retrofitted; Oakland Touchdown—at the Oakland end of the East Span, construction of two parallel, cast-in-place post-tensioned concrete viaducts, which join the skyway to the at-grade Oakland approach fill; and Existing Bridge Demolition—demolition of the existing 1936 SFOBB East Span structure after the construction and placement of traffic onto the new East Span.

**SFOBB East Span Replacement Cost Summary (\$Millions)**

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	959.4	-	959.4	435.3	977.1	17.7
Capital Outlay				-	-	-
Skyway	1,293.0	-	1,293.0	1,032.8	1,293.0	-
SAS Superstructure	1,753.7	-	1,753.7	67.6	1,767.4	13.7
SAS E2/T1 Foundations	313.5	-	313.5	144.8	313.5	-
YBI Structures	299.3	-	299.3	-	318.5	19.2
Oakland Touchdown (OTD)	283.8	-	283.8	-	272.7	(11.1)
* OTD Submarine Cable				-	9.6	
* OTD No. 1 (Westbound)				-	196.7	
* OTD No. 2 (Eastbound)				-	62.0	
* OTD Electrical Systems				-	4.4	
YBI South/South Detour	131.9	-	131.9	33.7	133.7	1.8
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	1.3	15.0	-
East Span Completed Projects	90.3	-	90.3	89.2	90.3	-
Right-of-Way and Environmental	72.4	-	72.4	38.8	72.4	-
Other Budgeted Capital	35.1	-	35.1	-	11.0	(24.1)
<b>TOTAL</b>	<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>1,843.5</b>	<b>5,486.6</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.



SFOBB East Span Replacement Project

**SFOBB East Span Replacement Schedule Summary**

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
Skyway	April 2007	-	April 2007	April 2007	-
YBI South / South Detour*	July 2007	-	July 2007	July 2007	-
Stormwater Treatment Measures	March 2008	-	March 2008	May 2007	(10)
SAS E2/T1 Foundations	June 2008	(3)	March 2008	March 2008	-
Open to Traffic: Westbound	September 2011	12	September 2012	September 2012	-
SAS Superstructure	March 2012	12	March 2013	March 2013	-
Open to Traffic: Eastbound	September 2012	12	September 2013	September 2013	-
Oakland Touchdown (OTD)	November 2013	12	November 2014	November 2014	-
* OTD Submarine Cable	n/a		July 2007	October 2007	3
* OTD No. 1 (Westbound)	n/a		July 2009	October 2009	3
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-
YBI Transition Structure*	November 2013	12	November 2014	November 2014	-
Existing Bridge Demolition*	September 2014	12	September 2015	September 2015	-

\* Contract schedules being further assessed due to changes in SAS schedule.

**Project Status:** Construction is currently ongoing on the Skyway, YBI South/South Detour, SAS E2/T1 Foundations and Stormwater Treatment Measures contracts. In May 2006, American Bridge Fluor Enterprises, a Joint Venture (ABF), commenced with work on the SFOBB East Span SAS Contract. The construction of the Stormwater Treatment Measures contract by Diablo Contractors began in April 2006. Contracts in design include the Oakland Touchdown (OTD) Westbound, OTD Eastbound, and OTD Submarine Cable contracts, and the YBI Transition Structure Contract, and Existing Bridge Demolition contract. The OTD contracts have been split and design of each contract is proceeding per its schedule requirements. In February 2006, the TBPOC authorized the split of the YBI Transition Structures (YBITS) contract into three separate contracts. In May 2006, the TBPOC approved a plan to continue with the current alignment for the YBITS, and the current plan for a double-decked eastbound and westbound South/South Detour (SSD). Design work on the Existing Bridge Demolition contract is currently on hold.

SAS contract addenda extended the SAS contract by a total of 12 months but also provided for an early completion incentive. There has been a like impact to the Westbound and Eastbound Open to Traffic dates, and the completion of the OTD, YBI Transition Structure, and the Existing Bridge Demolition contracts. The East Span corridor cost and schedule forecast does not assume achievement of the early completion incentive that was also part of Addendum #7; however, schedule planning of the future construction contracts continues assuming that the SAS early completion is achieved to ensure that they will not impact bridge opening in that event.

**Project Issues:** Caltrans, BATA, and CTC are working as a single team to mitigate the impact of the various cost and schedule risks that have been identified (to include an 80 percent probability of a 21-month extension of the SAS contract completion) through risk response actions, such as implementation of the fabrication action and solution team (FAST), the campus concept for integrating supplier/fabricator/Caltrans teams, and a review of the COS resources that can mitigate many of the delay-causing possibilities. These and other proactive approaches to reduce risk impact and to retire risk issues as early as possible will continue throughout the life of the SFOBB East Span Project.

**Recent TBPOC Actions:** See the following contract detail pages for specific TBPOC actions on East Span contracts.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SKYWAY CONTRACT

**Contract Description:** The Skyway contract constructs two parallel pre-cast concrete approach spans from Oakland to the self-anchored suspension span near Yerba Buena Island.

#### Skyway Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - Skyway						
Capital Outlay Support	197.0	-	197.0	141.4	197.0	-
Capital Outlay Construction	1,293.0	-	1,293.0	1,032.8	1,293.0	-
<b>TOTAL</b>	<b>1,490.0</b>	<b>-</b>	<b>1,490.0</b>	<b>1,174.2</b>	<b>1,490.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### Skyway Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
East Span - Skyway	April 2007	-	April 2007	April 2007	-

**Contract Status:** The Skyway contract is currently in construction and is 91% complete as of June 20, 2006. The Foundation work is complete with the exception of installing Fenders around six of the pier footings. The Fender work began in late January 2006 and is scheduled to be completed by September 2006. The Pier Tables are now 100% complete with the final work performed in early June 2006. The Eastbound structure is 100% complete with the erection of all segments, while the Westbound structure has erected 152 of the 226 segments (67%) with 74 segments remaining to be erected. A total of 378 segments (84%) have been installed to date. Erection activities are underway at Pier 4W and Pier 7W (refer to diagram on page 13) and construction of pier table 6W was completed. The Westbound Orthotropic Box Girder is scheduled for erection in September 2006. Bike Path cantilever beams continue to be installed with 97% complete and the installation of the panel segments is currently at 29% complete. The Stockton pre-cast yard has cast 100% (452) of the segments for the project. The next hinge pipe beams will be installed at hinge CW in August 2006, while hinge BW pipe beams are scheduled for October 2006.

**Contract Issues:**

Issue	Mitigating Action
<p>KFM issued 15 NOPC's on behalf of USI for welding issues related to the fabrication of the Steel Orthotropic Box Girders (SOBG).</p>	<p>USI continues fabrication of the SOBG with continued inspection by the Department. All NOPC's filed were recommended to be heard by the DRB.</p> <ul style="list-style-type: none"> <li>• NOPC 14 was withdrawn by KFM.</li> <li>• NOPC 15 regarding the Closed Rib Weld Measurement of the Orthotropic Box Girder was heard by the DRB in March with a two-day hearing. The Board's decision was released on April 10, 2006, in a unanimous 3-0 vote for the contractor. Its impact is being evaluated by Caltrans and TBPOC.</li> <li>• NOPC 21 regarding the Heat Straightening of the Orthotropic Box Girder was heard by the DRB in March, with a two-day hearing. The Board's decision was released on April 26, 2006, in a majority decision 2-1 vote for the contractor. Its impact is being evaluated by Caltrans and TBPOC.</li> <li>• Two other hearings were scheduled for May, however were postponed, and are now pending a DRB hearing date.</li> </ul>
<p>A schedule extension is currently being analyzed as a result of issues which affect the controlling operations.</p>	<p>A delay to the Skyway contract is anticipated due to hinge pipe beam fabrication, service platforms, electrical appurtenances, polyester concrete overlay, modular joints and other operations to be completed. The amount of contract delay is subject to analysis by Caltrans and negotiation with the contractor. The projected delay to the Skyway project is not expected to delay the overall open-to-traffic date for the East Span Replacement project, nor is the cost associated with this delay expected to impact the overall budget for the Skyway contract.</p> <p>NOPC #11, regarding the Hinge Pipe Beam issues were heard by the Dispute Resolution Board (DRB) in November and December with two, two-day hearings. The Board's decision was released on January 26, 2006, in a unanimous 3-0 vote for the contractor. Its impact is being evaluated by Caltrans and the TBPOC. Caltrans has informed the Board that the DRB recommendations remain unresolved.</p>

**Recent TBPOC Actions:** None.

**Contract Photographs**

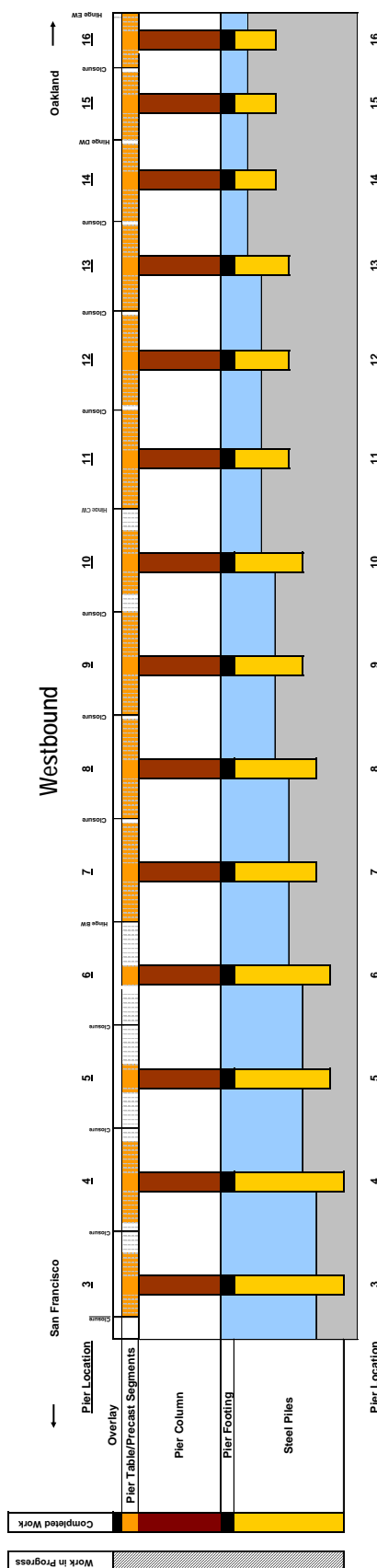
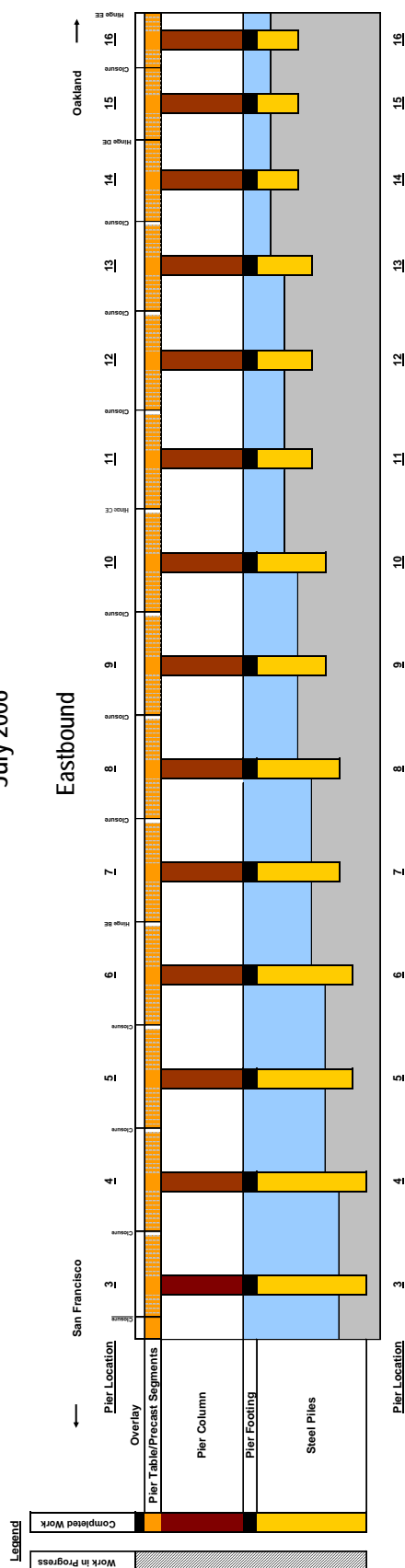
*Western end of Skyway with adjacent E2 foundation construction*



*Aerial View of West End of the Skyway*

**Contract Photographs Cont'd.***Eastbound and Westbound Skyway**Eastbound and Westbound Skyway**Precast deck segments ready for transport**Precast deck segments at Stockton casting yard**Precast deck segments at Stockton casting yard**Deck segment at Pier 10 awaiting hinge pipe beam installation*

# San Francisco-Oakland Bay Bridge East Span Replacement Project - Skyway Contract July 2006



## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SELF-ANCHORED SUSPENSION (SAS) SUPERSTRUCTURE CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) Superstructure contract constructs a signature tower span between the skyway and the Yerba Buena Island transition structure. Work on the SAS bridge has been split between three contracts—the SAS Superstructure (under construction), the SAS E2/T1 Foundation (under construction), and the SAS W2 Foundation (completed).

#### SAS Superstructure Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS Superstructure						
Capital Outlay Support	214.6	-	214.6	21.6	214.6	-
Capital Outlay Construction	1,753.7	-	1,753.7	67.6	1,767.4	13.7
<b>TOTAL</b>	<b>1,968.3</b>	<b>-</b>	<b>1,968.3</b>	<b>89.2</b>	<b>1,982.0</b>	<b>13.7</b>

*Note: Details may not sum to totals due to rounding effects.*

#### SAS Superstructure Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
East Span - SAS Superstructure	March 2012	12	March 2013	March 2013	-

**Contract Status:** The contract is 5% complete as of June 20, 2006. Caltrans executed the SAS Superstructure Contract for construction on May 3, 2006 with American Bridge Fluor Enterprises, Inc., a Joint Venture (ABF). Contractor has started setting-up trailers for the field office and working drawing campus on Pier 7. Development of various administrative submittals, including baseline schedule, has started. Contractor is finalizing agreements with manufacturers, fabricators, suppliers and subcontractors, and has signed a steel fabrication agreement with Zhenhua Port Machinery Company, of Shanghai, China.

The cost forecast for the project is being re-evaluated to reflect TBPOC direction concerning bid stipend amounts, contract incentives and the bid contract amount. The project budget and schedule for the SAS contract will be updated in future monthly reports, as needed.

The forecast \$13.7 million increase in construction costs on the SAS contract from the approved budget reflects actions taken to encourage additional bidders for the contract.

#### Contract Issues:

Issue	Mitigating Action
There were several design changes identified during the bid period that were not included in the addenda process. Delay in the issuance of some of these changes could potentially impact the start of the Contractor's shop drawing preparation.	Caltrans has developed and prioritized a list of potential Contract Change Order (CCO) issues. Change order packages are being prepared for the immediate priority items and will be issued shortly after the Contract is awarded.

**Recent TBPOC Actions:** None.

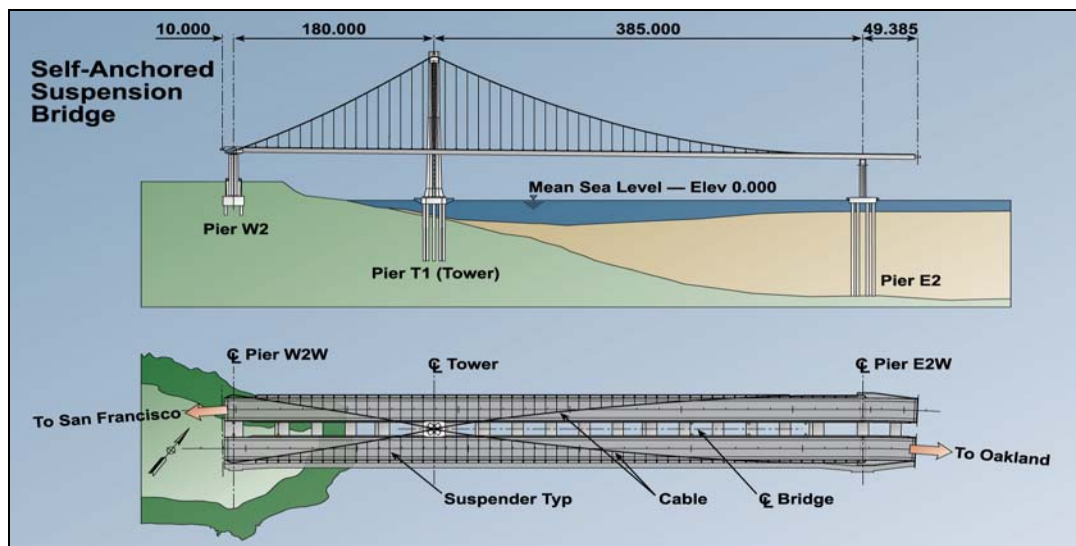
### Contract Photographs



*SAS Superstructure Artist Rendition*



*View of the Western end of the Skyway contract that will connect with the future SAS contract.*



## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► SELF-ANCHORED SUSPENSION (SAS) E2/T1 FOUNDATIONS CONTRACT

**Contract Description:** The Self-Anchored Suspension (SAS) E2/T1 Foundations contract constructs the main tower foundation at T1 and the adjacent east foundation at E2.

#### SAS E2/T1 Foundations Cost Summary (\$ Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
East Span - SAS E2 / T1 Foundations						
Capital Outlay Support	52.5	-	52.5	12.0	52.5	-
Capital Outlay Construction	313.5	-	313.5	144.8	313.5	-
<b>TOTAL</b>	<b>366.0</b>	<b>-</b>	<b>366.0</b>	<b>156.8</b>	<b>366.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### SAS E2/T1 Foundations Schedule Summary

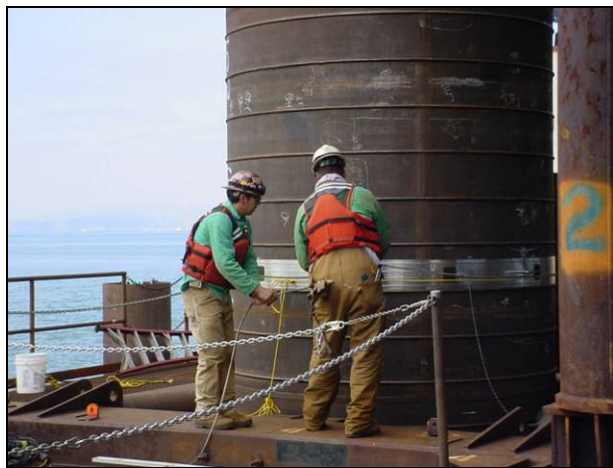
Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
East Span - SAS E2 / T1 Foundations	June 2008	(3)	March 2008	March 2008	-

**Contract Status:** The contract status is 42% complete as of June 20, 2006. The drilling operations for T1 piles are in progress. Pile driving for the E2 piles is also in progress with 2 piles complete (with tops) out of the 16 E2 piles. Fabrication of the T1 footing box is approximately 20% complete. Fabrication of the E2 footing frame is approximately 20% complete. Fabrication of the E2 cofferdam is also in progress.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Project Photographs

*E2 foundation - Steel piles**E2 Foundation - Pile welding**E2 foundation - pile driving operations**Fabrication of the T1 footing box**E2 Foundation - Pile Driving Operations**E2 Foundation - Pile Driving Operations*

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► YERBA BUENA ISLAND (YBI) SOUTH/SOUTH DETOUR CONTRACT

**Contract Description:** The Yerba Buena Island (YBI) South/South Detour Contract constructs a temporary detour from the YBI tunnel to the existing east span of the Bay Bridge. This detour maintains traffic on the existing bridge while the YBI Transition Structure Contract completes the tie-in from the SAS to the existing tunnel.

#### YBI South/South Detour Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
YBI South/South Detour						
Capital Outlay Support	29.5	-	29.5	15.9	29.5	-
Capital Outlay Construction	131.9	-	131.9	33.7	133.7	1.8
<b>TOTAL</b>	<b>161.4</b>	<b>-</b>	<b>161.4</b>	<b>49.6</b>	<b>163.2</b>	<b>1.8</b>

*Note: Details may not sum to totals due to rounding effects.*

#### YBI South/South Detour Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
YBI South / South Detour *	July 2007	-	July 2007	July 2007	-

\* Contract schedule under assessment. See Contract Issues below.

**Contract Status:** The contract work is 37% complete as of June 20, 2006. To minimize impacts on the traveling public, portions of the East and West Tie-in field operations remain suspended with the exception of the work in the vicinity of Southgate road. The contract is performance based, whereby the contractor is responsible for both designing and constructing the detour structures. The contractor has formed and fully cast the columns at Bents 48 L/R, 49 L/R, 50 L/R and 51 L and will continue to cast the remaining column segments at Bents 51R, 52L & 52R. Southgate Road has been reopened in one direction for traffic to proceed towards the lower deck Eastbound on-ramp. Caltrans is recommending design enhancements to the viaduct segment of the structure for improved seismic safety, and to allow the viaduct structure to stand alone, necessary due to a suspension of tie-in construction work. The Contractor has re-submitted the Final Design for the West Tie-In and is currently under review by Caltrans. Caltrans has rejected the East Tie-In (ETI) Final Superstructure design submittal and is now self-performing the East Tie-In design. Due to the suspensions on the contract, the Contractor's original structural steel fabricator is no longer able to accommodate this work on their schedule; as such, a change in fabricator is being implemented.

**Contract Issues:**

Issue	Mitigating Action
<p>Delay to the SAS contract due to re-advertising and Addenda #5 and #7 to the SAS contract has impacts on the South/South Detour Contract.</p> <p>Suspension outlined in CCO 24-S2 (approved) ended April 16, 2006 but has been extended indefinitely.</p>	<p>The TBPOC approved a plan to continue with the currently programmed SSD structure (see Recent TBPOC Actions below). Various options concerning contract scope and schedule are being considered to efficiently complete this contract while integrating any future SAS schedule revisions.</p>

**Recent TBPOC Actions:** In May 2006, the TBPOC approved a plan to continue with the currently programmed double-decked eastbound and westbound SSD.

**Contract Photographs**

Aerial View of SSD



Aerial View of SSD



SSD construction



SSD slope protection

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OTHER MAJOR CONTRACTS

**Contract Description:** Caltrans is currently designing a number of other major construction contracts that will be necessary prior to opening the new east span, including the Oakland Touchdown and the YBI Transition Structure. Following opening of the new bridge, the existing bridge will be removed with the Bridge Demolition contract.

#### Other Major Contracts Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
A	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	238.8	-	238.8	35.4	256.5	17.7
Capital Outlay Construction						-
YBI Transition Structure	299.3	-	299.3	-	318.5	19.2
Oakland Touchdown	283.8	-	283.8	-	272.7	(11.1)
* OTD Submarine Cable				-	9.6	-
* OTD No. 1 (Westbound)				-	196.7	-
* OTD No. 2 (Eastbound)				-	62.0	-
* OTD Electrical Systems				-	4.4	-
Existing Bridge Demolition	239.2	-	239.2	-	222.0	(17.2)
Stormwater Treatment Measures	15.0	-	15.0	1.3	15.0	-
Total Capital Outlay Construction	837.3	-	837.3	1.3	1,100.9	263.6
<b>TOTAL</b>	<b>1,076.1</b>	<b>-</b>	<b>1,076.1</b>	<b>36.7</b>	<b>1,357.4</b>	<b>281.3</b>

Note: Details may not sum to totals due to rounding effects.

#### Other Major Contracts Schedule Summary

Contract	AB 144/SB 66 Contract Completion Baseline (07/2005)	Approve d Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)	% Design Comp.
YBI Transition Structure	November 2013	12	November 2014	November 2014	-	80
Oakland Touchdown	November 2013	12	November 2014	November 2014	-	TBD
* OTD Submarine Cable	n/a		July 2007	October 2007	3	TBD
* OTD No. 1 (Westbound)	n/a		July 2009	October 2009	3	TBD
* OTD No. 2 (Eastbound)	n/a		November 2014	November 2014	-	TBD
Existing Bridge Demolition	September 2014	12	September 2015	September 2015	-	10

#### Contract Status:

**Stormwater Treatment Measures:** Construction on this contract to implement best practices for stormwater runoff treatment at the toll plaza began in April 2006. The contractor is Diablo Constructors. The current schedule forecast reflects the actual award date that was earlier than planned plus a reduced construction contract duration that was shown in the contractor's bid. The contract is 10% complete as of June 20, 2006. Initial construction included installing drainage system 202, drainage system 201 and pump stations 1A and 1B.

**Contract Issues:**

Issue	Mitigating Action
Unsuitable materials have been encountered throughout the project while installing drainage systems 201, 202 and 518.	CCO to be issued for over excavation of unsuitable material and replacement with acceptable material.
The Document Management System in the Special Provisions was meant for a project similar to SAS. Caltrans wants to reduce scope and obtain credit from contractor. Contractor does not agree on the amount of credit.	Negotiations are underway with the contractor to resolve this issue to mutual satisfaction.

*Drainage system 201**Pump station 1A**Drainage system 202*

**Oakland Touchdown:** The TBPOC authorized Caltrans to split the Oakland Touchdown (OTD) into multiple contracts to accelerate work and to reduce the risk of any of this work impacting the critical path for the project. OTD Contract No. 1 would construct all the marine foundation work and westbound approach work earlier to keep the work off the project's critical path and is forecast to be complete in October 2009. OTD Contract No. 2 would construct the remaining eastbound approach when westbound traffic is shifted onto the new SAS and is now scheduled to be complete in November 2014, which does not impact the eastbound open-to-traffic date. The OTD Submarine Cable Contract would replace the existing submarine electrical cable from Oakland to Treasure Island and is forecast to be completed in October 2007. It will be the first to be constructed to avoid possible construction conflicts. The OTD Electrical Systems Contract would incorporate most of the electrical elements from OTD as well as from other segments of the East Span into a single contract and is currently being scoped. Caltrans recently issued for review 95% Plans, Specifications and Engineer's Estimate (PS&E) documents for the Relocation of the Existing Submarine Cable. As a result of extending the SAS contract duration by 12 months, the Oakland Touchdown completion date has been extended by 12 months. The forecast \$11.1 million decrease in construction costs on the Oakland Touchdown series of contracts from the approved budget reflects the result of the split of the OTD contract into multiple contracts to accelerate work and to reduce schedule risks. However, the capital outlay support for the contract was increased by \$19.2 million to cover the additional work to split the contract and to administer four separate contracts over a longer duration rather than the original single contract. This COS impact is estimated at \$17.7 million, and includes engineering, support and administration costs. Currently, these adjustments can be funded from contingencies in Other Budgeted Capital.

**YBI Transition Structure:** This contract is currently being designed by Caltrans. In February 2006, TBPOC authorized the split of the YBI contract into three contracts to balance the time that traffic is placed on the South South Detour and overall corridor schedule risk, mitigate potential cost increases due to delays from other contracts, optimize the YBI contract durations and reduce cost risk for the SSD demolition by sequencing the contracts to allow SSD as-built plans to be incorporated into the YBITS contract documents. The first contract will construct the mainline YBI transition structures (YBITS) and all work required to place traffic onto the new bridge. The second contract will include demolition of the South South Detour (SSD), completion of the new eastbound on-ramp and YBI restoration activities. Caltrans is initiating the design effort to split these contract documents. A third contract will include the YBI landscaping scope. The contract schedule completion date has been extended by 12 months due to a 12-month delay to the Eastbound Open to Traffic date caused by the impact to the SAS contract completion due to SAS Addenda #5 and #7. The \$19.2 million increase in construction costs on the YBITS contract from the approved budget reflects a higher estimate for electrical work and revised escalation costs due to the revised schedule.

**Bridge Demolition:** Design is 10% complete and currently on hold. The contract schedule completion date has been extended by 12 months due to a 12-month SAS contract extension. The \$17.2 million decrease in construction costs for the Existing Bridge Demolition contract is due to a re-evaluation of cost escalation rates for the contract.

**Recent TBPOC Actions:** In March 2006, the TBPOC approved the Plans, Specifications, and Estimate (PS&E) for the OTD Submarine Cable Contract. In May 2006, the TBPOC approved a plan to continue with the current alignment for YBITS.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project

#### ► OTHER COMPLETED CONTRACTS AND RELATED WORK

**Summary Description:** Substantial work has already been performed on the SFOBB East Span Replacement project to facilitate construction of the mainline construction contracts.

#### Other Contracts and Related Work Cost Summary (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	E	f	g = f - d
Capital Outlay Support	227.0	-	227.0	209.0	227.0	-
Right-of-Way and Environmental Mitigation	72.4	-	72.4	38.8	72.4	-
Capital Outlay Construction						-
SAS W2 Foundations	26.4	-	26.4	25.8	26.4	-
YBI/SAS Archeology	1.1	-	1.1	1.1	1.1	-
YBI - USCG Road Relocation	3.0	-	3.0	2.8	3.0	-
YBI - Substation and Viaduct	11.6	-	11.6	11.3	11.6	-
Oakland Geofill	8.2	-	8.2	8.2	8.2	-
Pile Installation Demonstration Project	9.2	-	9.2	9.2	9.2	-
Existing East Span Retrofit	30.8	-	30.8	30.8	30.8	-
Total Capital Outlay Construction Completed	90.3	-	90.3	89.2	90.3	-
<b>TOTAL</b>	<b>389.7</b>	<b>-</b>	<b>389.7</b>	<b>337.0</b>	<b>389.7</b>	

*Note: Details may not sum to totals due to rounding effects.*

#### Other Contracts and Related Work Schedule Summary

Project	Actual Project Completion Date
Existing East Span Retrofit	March 1998
Interim Retrofit	July 2000
Pile Installation Demolition Project	December 2000
YBI / SAS Archaeology	January 2003
Oakland Geofill	April 2003
YBI - USCG Road Relocation	June 2004
SAS W2 Foundations	October 2004
YBI Substation and Viaduct	May 2005

**Summary Status:** Construction has been completed on the above listed contracts. Caltrans continues to work with various environmental agencies to conduct compliance inspections and monitor and mitigate any environmental impacts from the project.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

### San Francisco-Oakland Bay Bridge (SFOBB) West Approach Replacement Project

**Project Description:** The SFOBB West Approach Replacement Project will replace the entire west approach structure from the 5<sup>th</sup> Street to the west anchorage of the existing west spans of the SFOBB while maintaining existing traffic lanes for the weekday commute.

#### SFOBB West Approach Replacement Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
West Approach						
Capital Outlay Support	120.0	-	120.0	79.2	120.0	-
Capital Outlay Construction	309.0	-	309.0	196.1	309.0	-
<b>TOTAL</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>275.3</b>	<b>429.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### SFOBB West Approach Replacement Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
West Approach	August 2009	-	August 2009	August 2009	-

**Project Status:** Construction is 69% complete as of June 20, 2006, which includes mobilization expenses. Seismic retrofit construction is continuing throughout the project. Major ongoing work during June included substructure construction activities for the I-80 mainline structures, the 5th Street and Harrison Street off ramps, and the 4th Street retrofit work; superstructure construction activities for Frame 8U (North); and demolition of the northern portion of the anchorage spans from Bents 2 through 6.

Progress also continues on the development of the work plan for the demolition of Frames 7U (South) and 8U (South), tentatively scheduled for fall 2006.

#### Project Issues:

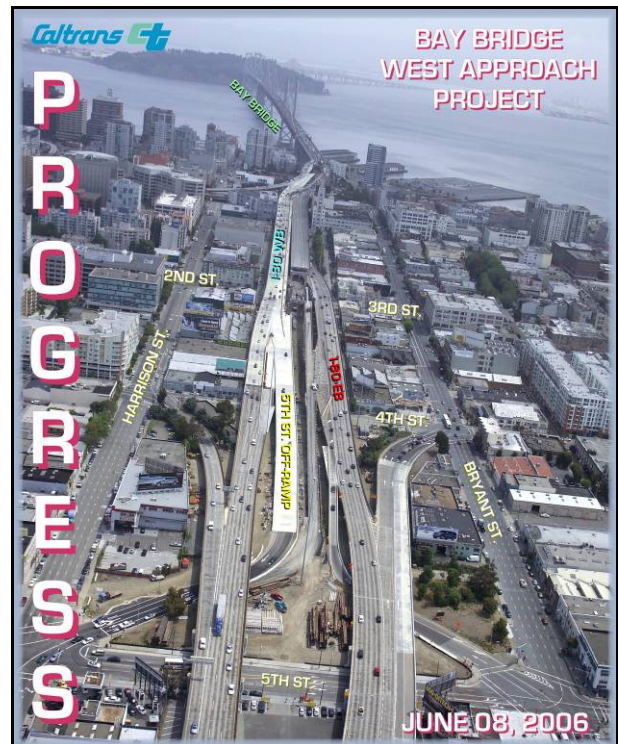
Issue	Mitigating Action
Ensuring the demolition of Frames 7U(S) and 8U(S) in fall 2006 in a way that optimizes schedule and minimizes impact to traffic.	The demolition workplan and traffic management / closure plans have been accepted by the TBPOC, and further detailed planning is underway. A proposed CCO to be executed with the contractor will be presented to the TBPOC for approval.

**Recent TBPOC Actions:** In April 2006, the TBPOC received the communication plan and the legislative outreach fact sheet.

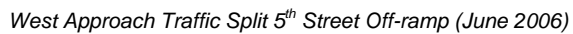
## Project Photographs



West Approach 8U North



Interim Eastbound I-80: Stage 6 Detour (ST6D)



## Toll Bridge Seismic Retrofit Program

### Richmond-San Rafael Bridge (RSRB) Seismic Retrofit Project

**Project Description:** The Richmond-San Rafael (RSR) Bridge Seismic Retrofit Project strengthened the existing bridge to withstand the effects of a large seismic event. As part of the retrofit work, Caltrans performed work to strengthen the bridge foundations, replace the existing west trestle, the main channel fenders, and the joint rehabilitation of the bridge deck. (The RM1 work is reported in the RM1 section of the report).

#### RSRB Seismic Retrofit Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSRB Seismic Retrofit						
Capital Outlay Support	134.0	-	134.0	125.3	127.0	(7.0)
Capital Outlay Construction	780.0	-	780.0	663.8	698.0	(82.0)
<b>TOTAL</b>	<b>914.0</b>	<b>-</b>	<b>914.0</b>	<b>789.1</b>	<b>825.0</b>	<b>(89.0)</b>

Note: Details may not sum to totals due to rounding effects.

\* The seismic retrofit contract included work to rehabilitate the bridge deck joints. Although the deck joint work was funded from RM1 toll funds, the work is also eligible for Toll Bridge Seismic Retrofit Program funding. In July 2005, BATA rescinded \$16.9 million in RM1 funds for the deck joint work to make additional RM1 funds available for the New Benicia-Martinez Bridge Project. An equivalent amount of seismic funds will be used on the deck joint work, which is included in the budget above.

#### RSRB Seismic Retrofit Schedule Summary

Project	AB 144/SB 66 Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
RSRB Seismic Retrofit	August 2005	-	August 2005	October 2005	2

**Project Status:** The construction contract was completed and accepted on October 28, 2005. Caltrans is expecting at least \$89 million in savings from the AB 144 / SB 66 budget. Caltrans is finalizing project plans and specifications for a public access lot on the Marin side of the bridge to comply with a Bay Conservation and Development Commission (BCDC) permit condition (see the exhibit on page 28). The PS&E documents for this scope have been transmitted to the Headquarters Office Engineer. Permits from other public agencies including the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service and the U.S. Army Corps of Engineers are being secured, but delays in accomplishing this have impacted the Public Access lot completion date. Caltrans is working to mitigate this impact through the use of an A+B bid specification.

#### Contract Issues:

Issue	Mitigating Action
The California Department of Fish and Game (CDF&G) made a presentation to Caltrans on April 4, 2006 and discussed impacts that pile driving conducted during the project had on aquatic species. Caltrans is currently preparing a response to the CDF&G presentation.	The cost forecast for this project has included a conservative allowance for the resolution of this issue.

**Recent TBPOC Actions:** None.



## Toll Bridge Seismic Retrofit Program

### Other Completed Seismic Retrofit Projects

**Summary Description:** Caltrans has already completed the seismic retrofits of the West Spans of the SFOBB, the existing 1958 Carquinez Bridge, the existing Benicia-Martinez Bridge, the San Mateo-Hayward Bridge, and two former toll bridges in southern California.

#### Other Completed Seismic Retrofit Projects Cost Summary (\$Millions)

Project	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	F	g = f - d
San Francisco-Oakland Bay Bridge West Span Seismic Retrofit Project	307.9	-	307.9	301.0	307.9	-
Carquinez Bridge Retrofit Project	114.2	-	114.2	114.5	114.2	-
Benicia-Martinez Bridge Retrofit Project	177.8	-	177.8	177.8	177.8	-
San Mateo-Hayward Bridge Retrofit Project	163.5	-	163.5	163.4	163.5	-
Vincent Thomas Bridge Retrofit Project	58.5	-	58.5	58.4	58.5	-
San Diego-Coronado Bridge Retrofit Project	103.5	-	103.5	102.6	103.5	-
<b>TOTAL</b>	<b>925.4</b>	<b>-</b>	<b>925.4</b>	<b>917.7</b>	<b>925.4</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects. Capital Outlay Support and Capital Outlay have been combined.*

#### Other Completed Seismic Retrofit Projects Schedule Summary

Project	Actual Project Completion Date
Vincent Thomas Bridge Retrofit	May 2000
San Mateo-Hayward Bridge Retrofit	June 2000
Carquinez Bridge Retrofit	January 2002
San Diego-Coronado Bridge Retrofit	June 2002
Benicia-Martinez Bridge Retrofit	August 2002
SFOBB West Span Seismic Retrofit	June 2004

**Summary Status:** Construction has been completed on the above listed projects. The Estimate at Completion amounts shown above include allowances for minor project closeout costs.

**Contract Issues:** None.

**Recent TBPOC Actions:** None.

## Toll Bridge Seismic Retrofit Program

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### *Other Toll Bridges*

#### **Dumbarton and Antioch Bridges**

The original design of the Dumbarton and Antioch Bridges were based on design criteria developed after the 1971 San Fernando Earthquake. In the early 1990's, Caltrans determined that these two structures had the seismic resistant features required by the post 1971 codes and were not likely to be vulnerable during a major seismic event. Since that time, Caltrans has pursued an aggressive seismic research program, and based on the results of this program, significantly revised its seismic design practice in the late 1990's. Consistent with recommendations by the Caltrans Seismic Advisory Board, Caltrans regularly reassesses the seismic hazard and performance of its bridges. Due to the tremendous changes in seismic design practice that have occurred since the design of the Dumbarton and Antioch bridges, a comprehensive assessment of the potential need and scope for seismic retrofit based on current knowledge is prudent.

#### **Previous Reports**

A number of limited studies have been made of these bridges in the past. However, none of the studies have fully assessed the seismic performance of the structures under current standards.

#### **Vulnerability Studies**

In late 2004, Caltrans initiated vulnerability studies on the Dumbarton and Antioch bridges. The purpose of these studies was to determine if the bridges would meet current seismic performance standards. The studies were essentially completed in May 2005. They were not a complete global analysis, but rather an investigation of selected bents modeled as independent structures. The analysis was limited in scope and based on as-built plans and currently available geotechnical information. The superstructure response was not analyzed.

The Dumbarton and Antioch Bridges have many seismic resistant features, and the results of the vulnerability studies indicate that the bridges should perform well in a moderate seismic event. However, during a major seismic event, some potential vulnerabilities (summarized below) become apparent.

- ◆ Foundation response generally governs performance. The piles may plunge axially and potentially cause permanent footing rotations.
- ◆ Potentially large foundation displacements and rotations may result in deformations that can't be easily repaired.
- ◆ The bent cap, pile cap, pile and superstructure are not capacity protected by the ductile columns and, as a result, these elements may be damaged in a major event, especially if the foundation is retrofitted.

Given the limitations of the studies, there was insufficient evidence to conclusively determine the performance of the bridges during a maximum credible earthquake (MCE). While the Dumbarton and Antioch bridges may meet performance standards, a more comprehensive technical study is necessary to understand the performance of these structures during an MCE event. A study of this level is necessary to accurately determine the structures' response and to develop any necessary retrofit strategies. A comprehensive geotechnical study using the latest analysis techniques is likely necessary in order to perform this level of analysis.

**Sensitivity Analysis**

As a follow-up to the Vulnerability Study, a sensitivity analysis was completed on a single representative bent used in the Vulnerability Study (Bent 23 of the Dumbarton Bridge). The goal of the analysis is to determine the structural response associated with uncertainties in the geotechnical data. An envelope of soil conditions (best-case and worst case scenarios) was used in the analysis. The results of the Sensitivity Analysis will be used to determine the scope and value of conducting further geotechnical studies.

The preliminary results from the sensitivity analysis indicate that the seismic response of the bridge is largely dependant on the soil conditions and that a comprehensive geotechnical investigation is essential for understanding the bridge's performance during a major seismic event. A work plan was developed to assess the extent of geotechnical work needed for a complete seismic analysis and to assess the required performance levels for each structure. Caltrans has completed the value analysis to scope the geotechnical investigation which will be required to complete the strategy. The final report was issued on July 24, 2006.

**Cost and Schedule**

A preliminary cost estimate, schedule, and an initial risk analysis have been developed to complete a comprehensive seismic analysis for each bridge. The preliminary estimate and schedule were developed as a baseline assuming a complete geotechnical and geophysical investigation is required at each bridge.

At the June 14, 2006 meeting, the Bay Area Toll Authority (BATA) approved the \$17.8 million that is necessary to proceed with this comprehensive seismic analysis.



*Antioch Bridge*



*Dumbarton Bridge*



## PROJECT / CONTRACT REPORTS

### Regional Measure 1 Program

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#### New Benicia-Martinez Bridge Project Summary

- New Benicia-Martinez Bridge Contract
- Other Contracts and Related Project Activities

#### New Carquinez Bridge Project

#### Richmond-San Rafael Bridge Deck Overlay Project

#### Interstate 880 / State Route 92 Interchange Reconstruction

#### Other Completed Regional Measure 1 Projects

- San Mateo-Hayward Bridge Widening Project
- Richmond Parkway Project
- Bayfront Expressway Widening Project
- Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project

## Regional Measure 1 Program

### New Benicia-Martinez Bridge Project Summary

**Project Description:** The new Benicia-Martinez Bridge project constructs a new parallel bridge just east of the existing bridge. The project will include reconstructed interchanges to the north and south of the bridges and a new toll plaza and administration building in Martinez.

#### New Benicia-Martinez Bridge Project Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	157.1	24.8	181.8	152.3	181.8	-
Right-of-Way and Others	20.4	(0.1)	20.3	12.2	20.3	-
Capital Outlay						-
New Bridge	672.0	107.3	779.3	671.9	779.3	-
I-680/I-780 Interchange Replacement	76.3	16.1	92.4	76.0	92.4	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	54.5	59.6	-
New Toll Plaza	24.3	2.0	26.3	21.1	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Other	20.3	(1.3)	19.0	15.1	19.0	-
Project Reserve	20.8	35.3	56.2	-	56.2	0.0
<b>TOTAL</b>	<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,003.1</b>	<b>1,263.0</b>	<b>0.0</b>

*Note: Details may not sum to totals due to rounding effects.*

*\* The budget and estimate at completion includes approximately \$33 million in non-toll bridge funds (Proposition 192 and SHOPP).*

#### New Benicia-Martinez Bridge Project Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	June 2006	August 2006	2
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Open to Traffic	December 2007	-	December 2007	December 2007	-
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

*\*See page 40 for an explanation of change in schedule forecast.*

**Project Status:** All major construction projects necessary to open the bridge are currently in construction. Numerous foundation and superstructure issues have significantly delayed the new bridge contract. See the following contract detail pages for more information. Note that the remaining expenditures required on the “Right-of-Way and Others” category represents environmental permitting and mitigation. On December 21, 2005, BATA approved a budget increase resulting in a revised total of \$1,263.0 million. Total cost forecast for the project remained the same at \$1,263.0 million. A \$3.6 million increase in support, due to a higher than anticipated increase in support overhead, will draw upon risk management funds set aside in the existing project reserve.

### Project Issues

Issue	Mitigating Action
To open the bridge, Caltrans will have to coordinate opening and close-out activities among the different contractors that will be active on the project. These activities, including structural bridge and electrical tie-ins, have been complicated by the delays to the new bridge. As identified in Caltrans Risk Management Plan, these delays also may further escalate support and material costs on the project.	Based on the Caltrans Risk Management Plan, BATA has budgeted a program contingency to fund these potential increases. Caltrans also is completing a comprehensive schedule of all activities necessary to open the new bridge to traffic. As necessary, Caltrans will be negotiating with their contractors to resolve any final opening and close-out activities to open the bridge.

**Recent TBPOC Actions:** See the following contract detail pages for more information.

### Project Photographs



*Toll plaza*



*Toll plaza*



*Toll plaza canopy*



*Toll plaza Administration building*

**Project Photographs Cont'd.**

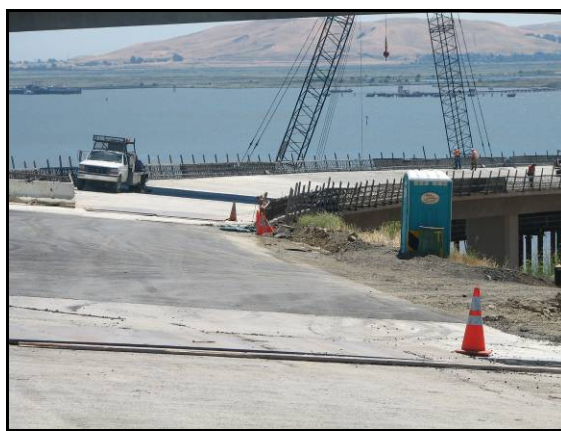
*New Benicia-Martinez bridge traveler at Pier 6*



*Pier 6 segment construction*



*Pier 11 segment construction*



*Connector between bridge 212 and 214*



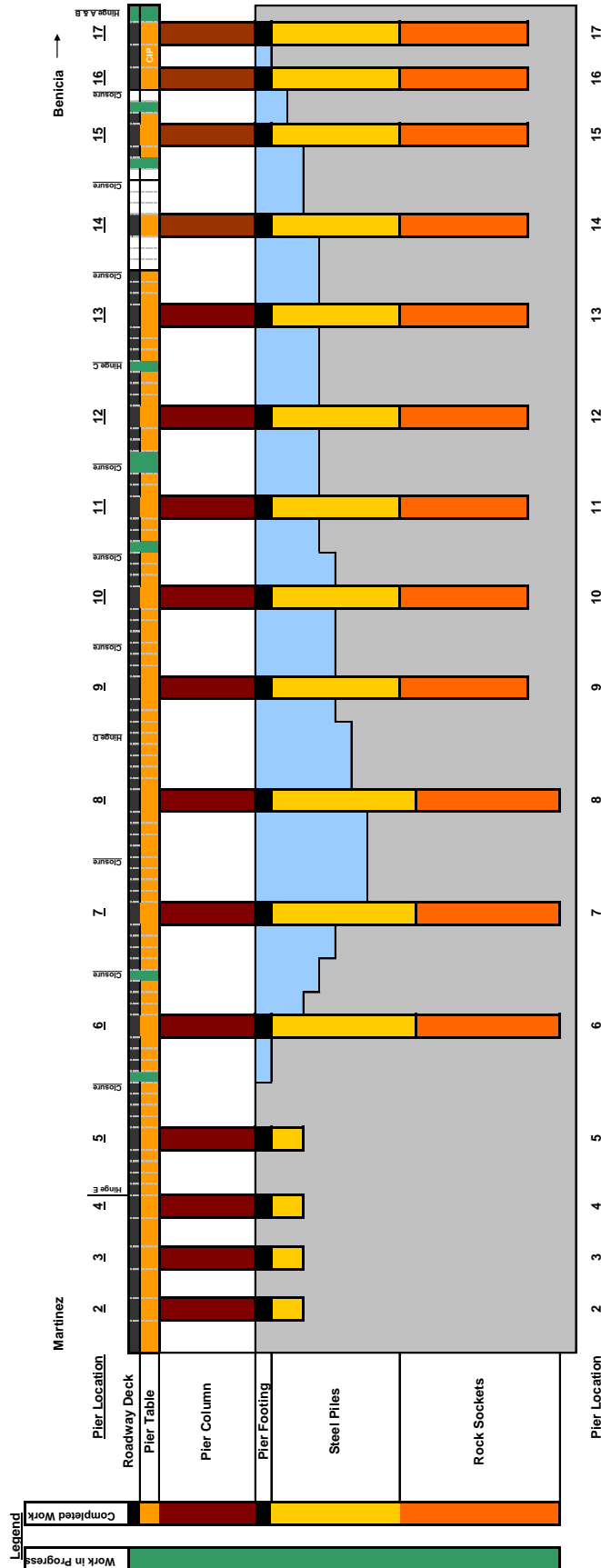
*Last section of 215 for stem and deck pour*



*Bridge 214, below and bridge 212 overhead*

### New Benicia-Martinez Bridge Progress Diagram

July 31, 2006



#### Notes:

1. Abutment 1 and Piers 2 through 5 are on land and have 66 piles. All piles, footings, columns and pier tables are complete. The superstructure is complete from Abutment 1 to Pier 4.
2. Piers 6 through 17 are located in the water and have 8 to 9 piles and rock sockets each - a total of 99. All 99 piles have been driven to their required depth and all 99 rock sockets have been installed.
3. Piers 6 through 17 have two-part footings. Piers 6, 16 and 17 have a cast-on-location lower section and a cast-in-place (CIP) upper section, which are lowered onto the piles. All three footings are complete. Piers 7 through 15 have a precast lower section that is set on the piles and a cast-in-place (CIP) upper section. All nine precast footings have been set and all CIP footings are complete.
4. All Stage 2 footings have been poured and stressed.
5. All pier tables are complete as of the end of May 2006.
6. Piers 4 through 15 have 344 cast-in-place cantilevered superstructure segments. Two hundred eighty-six (286) segments (83%) have been cast to-date (38 at Pier 5, 32 at Pier 6, 38 at Pier 7, 39 at Pier 8, 29 including diaphragm A at Pier 9, 30 at Pier 10, 16 at Pier 11, 28 at Pier 12, 25 at Pier 13, and 11 at Pier 15). The cantilever segments are complete for the following piers: 5, 7, 8, 9, 10 and 13.
7. The cast-in-place on falseworks superstructure south of Pier 4 is substantially complete, except for the bridge deck repair work, which are still to be done. The structure north of Pier 15 is progressing, with work continuing on forms, rebar and PT for spans 15 and 16 top deck, and for the lower hinge seats at Hinges A and B. Completed top deck pour on span 15, and soffit pour on span 17.

## Regional Measure 1 Program

### New Benicia-Martinez Bridge Project

#### ► NEW BENICIA-MARTINEZ BRIDGE CONTRACT

**Contract Description:** The new bridge contract constructs a new cast-in-place segmentally constructed reinforced concrete bridge just east of the existing bridge. The new bridge will carry five lanes of eastbound I-680 traffic towards Benicia.

#### New Benicia-Martinez Bridge Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
New Benicia-Martinez Bridge						
Capital Outlay Support	84.9	7.7	92.6	76.2	92.6	-
Capital Outlay Construction	672.0	107.3	779.3	671.9	779.3	-
<b>TOTAL</b>	<b>756.9</b>	<b>115.0</b>	<b>871.9</b>	<b>748.1</b>	<b>871.9</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

#### New Benicia-Martinez Bridge Schedule Summary

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
New Benicia-Martinez Bridge	December 2007	-	December 2007	December 2007	-

**Contract Status:** The contract is 82 % complete based on the current revised schedule. All substructure and column work has been completed. Superstructure work is continuing throughout the project. For the cast-in-place portion of the bridge over the straits (Frames 2 and 3), all 11 of the pier tables have been completed, and segment construction either have been in progress or have been completed on 10 of 11 piers. Segment construction has been completed at Piers 5, 7, 8, 9, 10 and 13 and is on-going at Piers 6, 11, 12 and 15 using the reusable form travelers. Through the end of June 2006, 286 of 344 (83%) segments have been completed. In order to maintain concrete temperature within the specified limits, the contractor continues the installation of cooling tube in the segments and the use of nitrogen cooling. Hinge D, connecting Frames 2 and 3 between Piers 8 and 9, construction work will continue through July 2006.

For the cast-on-falsework structures (Frames 1 and 4), work on Frame 4 on the south side of the straits is complete. Grinding on defective bridge deck surface was performed from 12 feet north of end of the structural approach slab to Pier 3 only. Additional profilographing, skid testing and grinding will be needed at approach slab and north of Pier 3. On Frame 1, concrete placement of all the top decks in Span 15, 16 and 17 has been completed this period.

Other on-going project work includes interior and exterior finish work at cantilever 7, 8 and 10 and concrete fender construction continues at Piers 8 and 9.

**Contract Issues**

Issue	Mitigating Action
<p>At the present time, there are no issues presently facing the project associated with hinge construction. However, these hinges represent a unique and complex element of the bridge construction. There are several areas of concern in the construction of this first hinge. Risk items include: superstructure alignment/geometry control, steel box girder alignment, rebar congestion, and bearing installation.</p>	<p>Over the last several months, meetings with the contractor and Caltrans staff were held to identify potential problem areas, as well as appropriate solutions to these issues should they occur. Also, the pedestal endpoints will be under continuous survey control and measurement to detect any trends in alignment and deflections. These actions will continue throughout the construction of the hinges.</p>

**Recent TBPOC Actions:** None

**Contract Photographs**

*Remaining top deck pour on bridge 215*



*Pier table 14*



*Pier 6 segment construction*



*Pier 11 segment construction*

## Regional Measure 1 Program

**New Benicia-Martinez Bridge Project Summary****► OTHER CONTRACTS AND RELATED PROJECT ACTIVITIES**

**Contract Description:** Contracts related to the new Benicia-Martinez Bridge project involve the construction of a new toll plaza south of the new bridge in Contra Costa County with 17 toll booths, including two high-occupancy vehicle (HOV) bypass lanes, and the reconstruction of the I-680/Marina Vista Road and I-680/I-780 interchanges.

**Other Contracts and Related Activities Cost Summary (\$Millions)**

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	72.2	17.0	89.2	76.1	89.2	-
Right-of-Way and Environmental Mitigation	20.4	(0.1)	20.3	12.2	20.3	-
Capital Outlay Construction						-
I-680/I-780 Interchange Replacement	76.3	16.1	92.4	76.0	92.4	-
I-680/Marina Vista Interchange Reconstruction	51.5	8.1	59.6	54.5	59.6	-
New Toll Plaza	24.3	2.0	26.3	21.1	26.3	-
Existing Bridge & Interchange Modifications	17.2	10.9	28.1	-	28.1	-
Others	20.3	(1.3)	19.0	15.1	19.0	-
Total Capital Outlay Construction	189.6	35.8	225.4	166.7	225.4	-
<b>TOTAL</b>	<b>282.2</b>	<b>52.7</b>	<b>334.9</b>	<b>255.0</b>	<b>334.9</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

**Other Contracts and Related Activities Schedule Summary**

Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
I-680/Marina Vista Interchange Reconstruction	March 2006	1	April 2006	April 2006	-
New Toll Plaza	June 2006	-	June 2006	August 2006	2
I-680/I-780 Interchange Replacement	December 2007	-	December 2007	February 2008	2
Existing Bridge & Interchange Modifications	December 2009	-	December 2009	December 2009	-

**Contract Status:**

**Toll Plaza and Administration Building:** The contract is 92 % complete based on contractor payment. The Contractor is continuing work throughout the toll plaza area, including aluminum composite panel at the canopy and hat channels installation at the soffit areas, traffic loop and lid installation continued, EMS conduit/ conductor installation completed, and ATCAS/Communication conductor installation commenced. The administration building has been significantly completed with minor miscellaneous work on finishes and equipment installation are continuing. Work is also on-going in the courtyard between the building and plaza and surrounding areas. Plant Establishment commenced on May 15, 2006. A number of notices of potential claim have been filed by the Contractor that remain to be resolved, pending substantiation from the Contractor, including liquidated damages due to the extended contract completion date.

**I-680/I-780 Interchange:** The contract is approximately 93% complete based on the current revised schedule. For the northbound I-680 connector from Pier 17 of the new bridge (Bridge 215), substructure work including the foundations and columns have been completed. Contractor completed the stripping of the lost deck at Span 19, continued stripping of the exterior forms and work on the transverse stressing. Work on the upper hinge of bridge 215 was also started. For the northbound I-680 connector to westbound I-780 (Bridges 212 and 214), all foundations and columns have been completed. On the 212 bridge superstructure, work continued on the on the construction joint and removal of “lost deck forms” (Note; lost deck forms are that falsework that remains in the bridge cells after placing the concrete deck. Typically, these forms are left behind and abandoned. However, in this project, where the box girders are large and deep, and will be used to service the bridge hinges and utilities, special provisions call for the removal of these lost deck forms). Paving at NW line between 212 and 214 bridges continued. While new structures are scheduled to be opened to traffic in December 2007, final electrical work on the new bridge and the interchange will not be completed until after opening of the new bridge.

**I-680/Marina Vista Interchange:** The contract is 100% complete, as of April 28, 2006 and Caltrans has started the acceptance process as of May 12, 2006 pending the Director’s approval.

**Wetland Mitigation:** The contract is 100% complete. The Contract Completion Acceptance (CCA) was submitted to Caltrans Headquarters for their approval on March 3, 2006. The Proposed Final Estimate (PFE) has been reviewed and accepted by the Contractor.

**Contract Issues**

Issue	Mitigating Action
As noted in the project's risk management plan, the Span 17 interface between the new bridge contractor and the I-680/I-780 interchange contractor may impact project cost and schedule. Delays on either contract will impact the opening of the bridge to traffic.	The I-680/I-780 contractor is expected to complete the span between the new bridge and the interchange. Caltrans is working with I-680/I-780 contractor to resolve final interface and scheduling issues resulting from the delayed completion of new bridge.

**Recent TBPOC Actions:** None.

## Regional Measure 1 Program

### New Carquinez Bridge Project

**Project Description:** The new Carquinez Bridge project involves constructing a new suspension bridge west of the existing bridges with four westbound lanes and a bicycle/pedestrian lane and demolishing the existing 1927 bridge.

#### New Carquinez Bridge Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
Capital Outlay Support	124.4	(1.1)	123.3	116.5	123.2	(0.1)
Capital Outlay Construction						
Replacement Bridge	253.3	4.0	257.3	253.2	257.3	-
South Interchange Reconstruction	73.9	-	73.9	71.9	73.9	-
Existing 1927 Bridge Demolition	35.2	-	35.2	19.1	35.2	-
Other	29.3	(0.7)	28.6	25.2	28.4	(0.2)
Project Reserve	12.1	(2.2)	9.9	-	10.2	0.3
<b>TOTAL</b>	<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>485.9</b>	<b>528.2</b>	<b>(0.0)</b>

*Note: Details may not sum to totals due to rounding effects.*

#### New Carquinez Bridge Schedule Summary

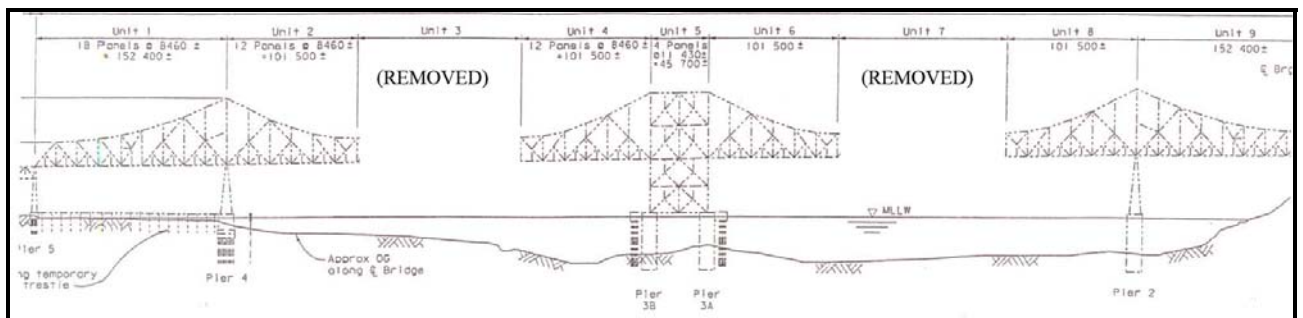
Contract	BATA Contract Completion Baseline (07/2005)	Approved Changes (Months)	Contract Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
New Carquinez Bridge	November 2003*	-	November 2003*	November 2003*	-
1927 Carquinez Bridge Demolition	December 2007	-	December 2007	September 2007	(3)
Landscaping	August 2011	-	August 2011	August 2011	-

\* The date shown is for the opening of the bridge to traffic.

**Project Status:** The new replacement bridge and all its approaches have been completed and opened to traffic. The demolition contract to remove the 1927 bridge is approximately 40% complete based on schedule. However, it is approximately 61% complete based on payment as the greatest pay items involved the 1958 bridge approach slab replacement, which has been completed. Traffic was switched back onto the 1958 bridge on November 10, 2005. Demolition of the 1927 bridge has started at Units 7 and 3 over the main shipping channels, with the deck and stringer removals. However, work was suspended, due to concern with the unanticipated buckling of eye bars. The contractor submitted and revised a modified deck removal plan for Unit 3 that was approved by Caltrans on February 23, 2006, causing 3 months of delay to the contract completion date. Demolition work for Unit 3 has since resumed, and Unit 3 was lowered on April 25, 2006. The second of two main truss sections of the 1927 Carquinez Bridge was successfully lowered onto barges on May 12, 2006. Preparation for the temporary support for the Unit 1 demolition is continuing. The total cost forecast for the project remained the same at \$528.2 million. Minor support and construction changes will draw upon the existing project reserve. The forecast for the construction cost of the new bridge was increased by \$1 million due to a revised claim settlement cost estimate from \$3 million to \$4 million. Minor changes to support costs were due to final project closeout costs.

**Project Issues:**

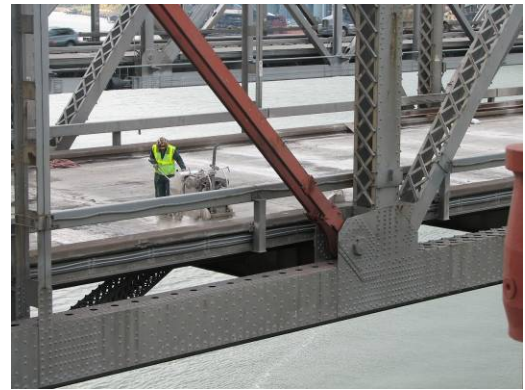
Issue	Mitigating Action
On the Replacement Carquinez Bridge Contract, the Contractor has submitted claims for various contract issues, including claims on fabrication, labor, and access.	Caltrans and BATA are evaluating a settlement proposal from the contractor.
Due to the suspension of approximately 3 months of work relative to the unanticipated buckling of eye bars during the demolition of Unit 3 and 7, the current contract completion date is December 28, 2007, which is 57 days over the 880 original contract duration. This includes 42 days related to the abovementioned suspension of work and 15 non-work days due to wet weather.	Caltrans is awaiting the Contractor to submit a Time Impact Analysis (TIA) that reflects the contractor delay to the overall schedule. Caltrans will then evaluate that TIA to establish a basis for negotiations.

**Project Photographs**

1927 Carquinez Bridge Demolition Progress Diagram



Carquinez bridge demolition



Carquinez bridge demolition



Carquinez bridge demolition



Hydraulic pump used to lower the Unit 3 span

## Regional Measure 1 Program

### Richmond-San Rafael Bridge (RSRB) Deck Overlay Project

**Project Description:** Rehabilitate the existing concrete deck on the bridge, damaged due to traffic and exposure to a marine environment.

#### RSRB Deck Overlay Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
RSR Deck Overlay						
Capital Outlay Support	8.0	(3.5)	4.5	1.9	4.5	-
Capital Outlay Construction	16.9	3.6	20.5	-	20.5	-
Project Reserve	0.1	(0.1)	-	-	-	-
<b>TOTAL</b>	<b>25.0</b>	<b>-</b>	<b>25.0</b>	<b>1.9</b>	<b>25.0</b>	<b>-</b>

*Note: Details may not sum to totals due to rounding effects.*

#### RSRB Deck Overlay Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
Richmond-San Rafael Bridge Deck Overlay Rehabilitation	January 2007	-	January 2007	January 2007	-

**Project Status:** Bids were opened on May 16, 2006. The low bid was \$6.3 million less than the engineer's estimate. Caltrans awarded the contract to California Engineers and Constructors (CEC) on June 2, 2006. A pre-construction meeting is scheduled for July 11, 2006 to discuss the start-of-construction date with the contractor. Estimated construction start is August 2006.

**Project Issues:** None

#### Project Photographs



RSR Concrete Deck Overlay

## Regional Measure 1 Program

### Interstate 880/State Route 92 Interchange Reconstruction Project

**Project Description:** Modify the existing cloverleaf interchange to increase capacity and improve safety and traffic operations.

#### Interstate 880/State Route 92 Interchange Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	B	c	d = b + c	e	f	g = f - d
I-880/SR-92 Interchange Improvement						
Capital Outlay Support	28.8	-	28.8	28.8	51.7	22.9
Capital Outlay Construction	94.8	-	94.8	-	122.5	27.7
Capital Outlay Right-of-Way	9.9	-	9.9	7.6	12.4	2.5
Project Reserve	0.3	-	0.3	-	9.7	9.4
<b>TOTAL</b>	<b>133.8</b>	<b>-</b>	<b>133.8</b>	<b>36.4</b>	<b>196.3</b>	<b>62.5</b>

*Note: Details may not sum to totals due to rounding effects. \$9.6 million in ACTA funds included under Capital Outlay Construction. \$3.7 million included in Capital Outlay Construction for separate landscape contract.*

#### Interstate 880/State Route 92 Interchange Schedule Summary

Project	BATA Project Completion Baseline (07/2005)	Approved Changes (Months)	Project Complete Current Approved Schedule (06/2006)	Contract Complete Schedule Forecast (06/2006)	Schedule Variance (Months)
I-880/SR-92 Interchange Reconstruction	November 2010	-	November 2010	June 2011	7

**Project Status:** The 100% PS&E package was sent to Caltrans Headquarters Office Engineer on May 3, 2006. Additional PG&E utility easements have been identified for the relocation of the six utility poles near Lindenwood Way. Work to relocate the utilities to an underground alignment is proceeding at Lindenwood Way. Caltrans continues to be in close contact with the utility companies to resolve any conflicts. Right-of-way acquisition is in progress. With the addition of the new easements, the right of way parcel count is now at 83 parcels. Of these, right-of-way from 59 parcels has been acquired. Wetland mitigation will revert back to on-site since the mitigation bank will not be in place by the time construction begins. The contract is scheduled to be advertised by February 2007 and start construction in June 2007, assuming Right-of-Way Certification occurs by the end of December 2006. The total cost forecast for the project has increased from \$186 million to \$196 million. The change is due to revised support, construction, and right-of-way estimates for the project. These increases are due to reported project delays and a 10% increase in support overhead costs for this coming fiscal year. The forecast assumes that right-of-way activities are completed to allow the contract to advertise by the end of this year with a four year construction duration. The forecast also includes nearly \$10 million for a project reserve.

#### Project Issues:

Issue	Mitigating Action
The forecast schedule included an aggressive schedule for right-of-way acquisition that provided for 18 months to clear numerous parcels in the project area. Additional time will be required to negotiate with parcel owners and the railroad complete property acquisition.	Delays in right-of-way acquisitions are impacting the advertisement and construction of the project. BATA and Caltrans are reviewing methods to accelerate the right-of-way procurement and begin the project. Also, the construction contract will be advertised with an A+B specification, which could reduce the construction duration and partially recover the project schedule.

## Regional Measure 1 Program

### Other Completed Regional Measure 1 (RM1) Projects

**Summary Description:** Other completed Regional Measure 1 projects are the following: (a) Widen the San Mateo-Hayward Bridge along its low-trestle section and its eastern approach, (b) Widen the Bayfront Expressway (SR 84) from the Dumbarton Bridge to the U.S. 101/Marsh Road interchange, (c) Construct an eastern approach (Richmond Parkway) between the Richmond-San Rafael Bridge and Interstate 80 near Pinole, and (d) Modify the U.S. 101/University Avenue interchange, (e) Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Project.

#### Other Completed RM1 Projects Cost Summary (\$Millions)

Contract	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	Variance
a	b	c	d = b + c	e	f	g = f - d
San Mateo-Hayward Bridge Widening Project	217.8	-	217.8	208.6	211.9	(5.9)
Bayfront Expressway Widening Project	36.1	-	36.1	33.1	36.1	-
Richmond Parkway Project	5.9	-	5.9	3.9	5.9	-
U.S. 101/University Interchange	3.8	-	3.8	3.7	3.8	-
RSR Trestle, Fender, and Joint Rehabilitation	102.1	-	102.1	96.9	97.1	(5.0)
<b>TOTAL</b>	<b>365.7</b>	<b>-</b>	<b>365.7</b>	<b>346.2</b>	<b>354.8</b>	<b>(10.9)</b>

#### Schedule Summary

Project	Actual Project Completion Date
Richmond Parkway Project	May 2001
San Mateo-Hayward Bridge Widening Project	February 2003
Bayfront Expressway Widening Project	January 2004
U.S. 101/University Interchange	April 2004
Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation	August 2005

**Project Status:** Construction has been completed on the above listed contracts.

**Project Issues:** None.



## APPENDICES

- A** Toll Bridge Seismic Retrofit Program:  
San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost  
Detail
- B** Toll Bridge Seismic Retrofit Program Cost Detail
- C** Toll Bridge Seismic Retrofit Program Summary Schedule
- D** Regional Measure 1 Program Cost Detail
- E** Regional Measure 1 Program Summary Schedule

*\* Cost forecasts shown herein are as of June 30, 2006. Forecasts for the Monthly Reports are generally updated on a quarterly basis in conjunction with Risk Analysis assessments for the TBSRP Projects and the TBSRP Quarterly Reports.*

## Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>San Francisco-Oakland Bay Bridge East Span Replacement Project</b>							
<b>East Span - Skyway</b>	<b>01202X</b>						
Capital Outlay Support		197.0	-	197.0	141.4	197.0	-
Capital Outlay Construction		1,293.0	-	1,293.0	1,032.8	1,293.0	-
<b>Total</b>		1,490.0	-	1,490.0	1,174.2	1,490.0	-
<b>East Span - SAS Superstructure</b>	<b>0120FX</b>						
Capital Outlay Support		214.6	-	214.6	21.6	214.6	-
Capital Outlay Construction		1,753.7	-	1,753.7	67.6	1,767.4	13.7
<b>Total</b>		1,968.3	-	1,968.3	89.2	1,982.0	13.7
<b>East Span - SAS E2/T1 Foundations</b>	<b>0120EX</b>						
Capital Outlay Support		52.5	-	52.5	12.0	52.5	-
Capital Outlay Construction		313.5	-	313.5	144.8	313.5	-
<b>Total</b>		366.0	-	366.0	156.8	366.0	-
<b>SAS W2 Foundations</b>	<b>0120CX</b>						
Capital Outlay Support		10.0	-	10.0	9.2	10.0	-
Capital Outlay Construction		26.4	-	26.4	25.8	26.4	-
<b>Total</b>		36.4	-	36.4	35.0	36.4	-
<b>YBI Transition Structures</b>	<b>0120PX</b>						
Capital Outlay Support		78.7	-	78.7	9.4	78.7	-
Capital Outlay Construction		299.3	-	299.3	-	318.5	19.2
<b>Total</b>		378.0	-	378.0	9.4	397.2	19.2
<b>Oakland Touchdown (see notes below)</b>	<b>01204X</b>						
Capital Outlay Support		74.4	-	74.4	21.0	92.1	17.7
Capital Outlay Construction		283.8	-	283.8	-	272.7	(11.1)
<b>Total</b>		358.2	-	358.2	21.0	364.8	6.6
<b>* OTD Submarine Cable</b>	<b>0120K4</b>						
Capital Outlay Support					0.1	3.0	
Capital Outlay Construction					-	9.6	
<b>Total</b>					0.1	12.6	
<b>* OTD No. 1 (Westbound)</b>	<b>0120L4</b>						
Capital Outlay Support					1.1	49.9	
Capital Outlay Construction					-	196.7	
<b>Total</b>					1.1	246.6	
<b>* OTD No. 2 (Eastbound)</b>	<b>0120M4</b>						
Capital Outlay Support					0.1	15.8	
Capital Outlay Construction					-	62.0	
<b>Total</b>					0.1	77.8	
<b>* OTD Electrical Systems</b>	<b>0120N4</b>						
Capital Outlay Support					-	1.4	
Capital Outlay Construction					-	4.4	
<b>Total</b>					-	5.8	
<b>YBI South/South Detour</b>	<b>0120RX</b>						
Capital Outlay Support		29.5	-	29.5	15.9	29.5	-
Capital Outlay Construction		131.9	-	131.9	33.7	133.7	1.8
<b>Total</b>		161.4	-	161.4	49.6	163.2	1.8
<b>Existing Bridge Demolition</b>	<b>01209X</b>						
Capital Outlay Support		79.7	-	79.7	0.2	79.7	-
Capital Outlay Construction		239.2	-	239.2	-	222.0	(17.2)
<b>Total</b>		318.9	-	318.9	0.2	301.7	(17.2)
<b>YBI/SAS Archeology</b>	<b>01207X</b>						
Capital Outlay Support		1.1	-	1.1	1.1	1.1	-
Capital Outlay Construction		1.1	-	1.1	1.1	1.1	-
<b>Total</b>		2.2	-	2.2	2.2	2.2	-

Notes: Oakland Touchdown Cost-to-Date and Cost Forecast includes prior-to-split Capital Outlay Support Costs.

Note: Details may not sum to totals due to rounding effects.

## Appendix A: Toll Bridge Seismic Retrofit Program (\$Millions)

**San Francisco-Oakland Bay Bridge (SFOBB) East Span Replacement Project Cost Detail (Cont'd.)**

Contract	EA Number	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>YBI - USCG Road Relocation</b>	<b>0120QX</b>						
Capital Outlay Support		3.0	-	3.0	2.7	3.0	-
Capital Outlay Construction		3.0	-	3.0	2.8	3.0	-
<b>Total</b>		6.0	-	6.0	5.5	6.0	-
<b>YBI - Substation and Viaduct</b>	<b>0120GX</b>						
Capital Outlay Support		6.5	-	6.5	6.4	6.5	-
Capital Outlay Construction		11.6	-	11.6	11.3	11.6	-
<b>Total</b>		18.1	-	18.1	17.7	18.1	-
<b>Oakland Geofill</b>	<b>01205X</b>						
Capital Outlay Support		2.5	-	2.5	2.5	2.5	-
Capital Outlay Construction		8.2	-	8.2	8.2	8.2	-
<b>Total</b>		10.7	-	10.7	10.7	10.7	-
<b>Pile Installation Demonstration Project</b>	<b>01208X</b>						
Capital Outlay Support		1.8	-	1.8	1.8	1.8	-
Capital Outlay Construction		9.2	-	9.2	9.2	9.2	-
<b>Total</b>		11.0	-	11.0	11.0	11.0	-
<b>Stormwater Treatment Measures</b>	<b>0120JX</b>						
Capital Outlay Support		6.0	-	6.0	4.8	6.0	-
Capital Outlay Construction		15.0	-	15.0	1.3	15.0	-
<b>Total</b>		21.0	-	21.0	6.1	21.0	-
<b>Right-of-Way and Environmental Mitigation</b>	<b>0120X9</b>						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay & Right-of-Way		72.4	-	72.4	38.8	72.4	-
<b>Total</b>		72.4	-	72.4	38.8	72.4	-
	<b>04343X &amp; 04300X</b>						
<b>Sunk Cost - Existing East Span Retrofit</b>							
Capital Outlay Support		39.5	-	39.5	39.5	39.5	-
Capital Outlay Construction		30.8	-	30.8	30.8	30.8	-
<b>Total</b>		70.3	-	70.3	70.3	70.3	-
<b>Other Capital Outlay Support</b>							
Environmental Phase		97.7	-	97.7	97.7	97.7	-
Pre-Split Project Expenditures		44.9	-	44.9	44.9	44.9	-
Non-project Specific Costs		20.0	-	20.0	3.2	20.0	-
<b>Total</b>		162.6	-	162.6	145.8	162.6	-
<b>Subtotal Capital Outlay Support</b>		959.4	-	959.4	435.3	977.1	17.7
<b>Subtotal Capital Outlay Construction</b>		4,492.1	-	4,492.1	1,408.2	4,498.5	6.4
<b>Other Budgeted Capital</b>		35.1	-	35.1	-	11.0	(24.1)
<b>Total SFOBB East Span Replacement Project</b>		<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>1,843.5</b>	<b>5,486.6</b>	<b>-</b>

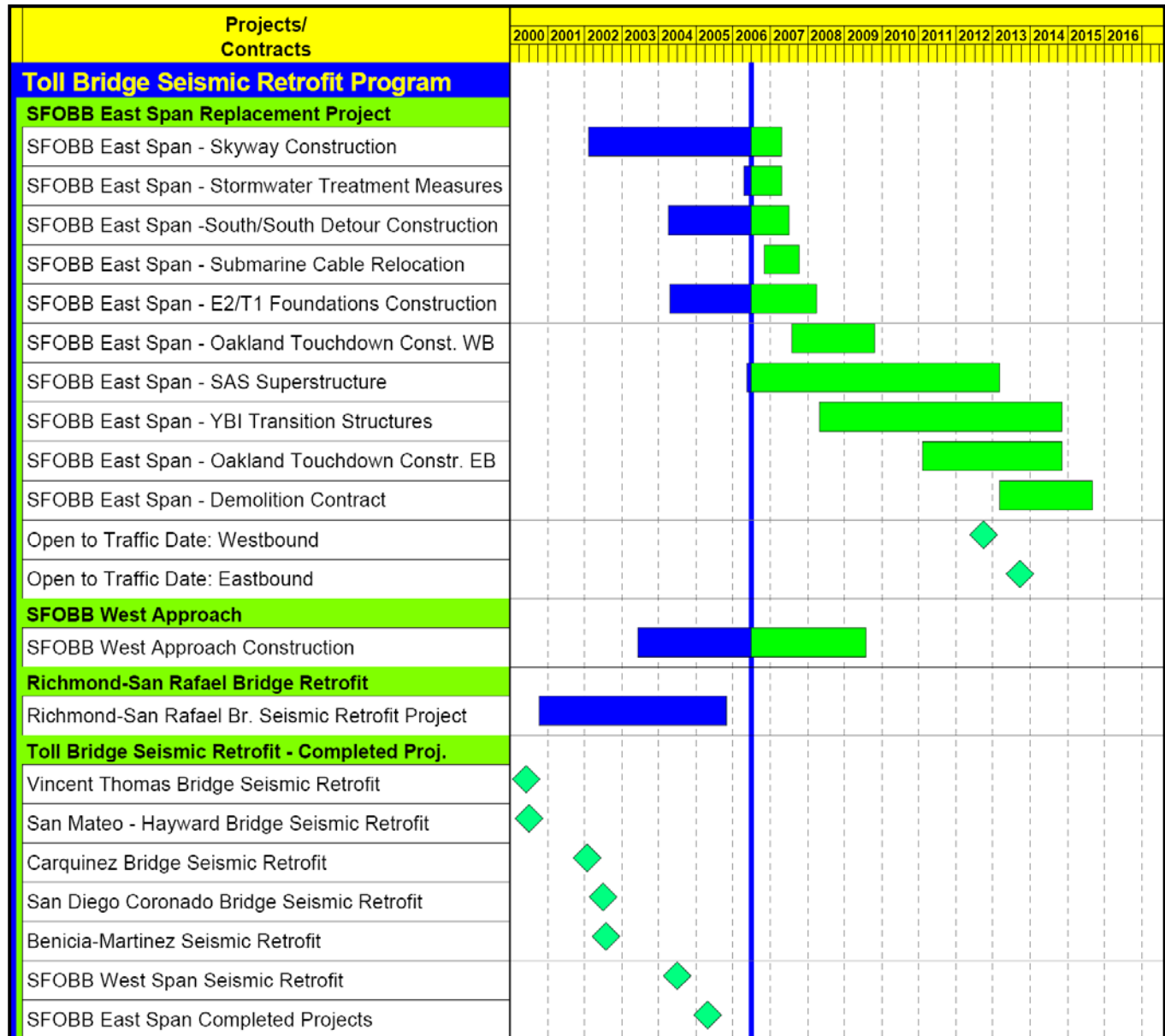
Note: Details may not sum to totals due to rounding effects.

## Appendix B: Toll Bridge Seismic Retrofit Program Cost Detail (\$Millions)

Contract	AB 144 / SB 66 Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	c	d	e = c + d	f	g	h = g - e
<b>SFOBB East Span Replacement Project</b>						
Capital Outlay Support	959.4	-	959.4	435.3	977.1	17.7
Capital Outlay Construction	4,492.1	-	4,492.1	1,408.2	4,498.5	6.4
Other Budgeted Capital	35.1	-	35.1	-	11.0	(24.1)
<b>Total</b>	<b>5,486.6</b>	<b>-</b>	<b>5,486.6</b>	<b>1,843.5</b>	<b>5,486.6</b>	<b>-</b>
<b>SFOBB West Approach Replacement</b>						
Capital Outlay Support	120.0	-	120.0	79.2	120.0	-
Capital Outlay Construction	309.0	-	309.0	196.1	309.0	-
<b>Total</b>	<b>429.0</b>	<b>-</b>	<b>429.0</b>	<b>275.3</b>	<b>429.0</b>	<b>-</b>
<b>SFOBB West Span Retrofit</b>						
Capital Outlay Support	75.0	-	75.0	74.8	75.0	-
Capital Outlay Construction	232.9	-	232.9	226.2	232.9	-
<b>Total</b>	<b>307.9</b>	<b>-</b>	<b>307.9</b>	<b>301.0</b>	<b>307.9</b>	<b>-</b>
<b>Richmond-San Rafael Bridge Retrofit</b>						
Capital Outlay Support	134.0	-	134.0	125.3	127.0	(7.0)
Capital Outlay Construction	780.0	-	780.0	663.8	698.0	(82.0)
<b>Total</b>	<b>914.0</b>	<b>-</b>	<b>914.0</b>	<b>789.1</b>	<b>825.0</b>	<b>(89.0)</b>
<b>Benicia-Martinez Bridge Retrofit</b>						
Capital Outlay Support	38.1	-	38.1	38.1	38.1	-
Capital Outlay Construction	139.7	-	139.7	139.7	139.7	-
<b>Total</b>	<b>177.8</b>	<b>-</b>	<b>177.8</b>	<b>177.8</b>	<b>177.8</b>	<b>-</b>
<b>Carquinez Bridge Retrofit</b>						
Capital Outlay Support	28.7	-	28.7	28.8	28.7	-
Capital Outlay Construction	85.5	-	85.5	85.7	85.5	-
<b>Total</b>	<b>114.2</b>	<b>-</b>	<b>114.2</b>	<b>114.5</b>	<b>114.2</b>	<b>-</b>
<b>San Mateo-Hayward Bridge Retrofit</b>						
Capital Outlay Support	28.1	-	28.1	28.1	28.1	-
Capital Outlay Construction	135.4	-	135.4	135.3	135.4	-
<b>Total</b>	<b>163.5</b>	<b>-</b>	<b>163.5</b>	<b>163.4</b>	<b>163.5</b>	<b>-</b>
<b>Vincent Thomas Bridge Retrofit (Los Angeles)</b>						
Capital Outlay Support	16.4	-	16.4	16.4	16.4	-
Capital Outlay Construction	42.1	-	42.1	42.0	42.1	-
<b>Total</b>	<b>58.5</b>	<b>-</b>	<b>58.5</b>	<b>58.4</b>	<b>58.5</b>	<b>-</b>
<b>San Diego-Coronado Bridge Retrofit</b>						
Capital Outlay Support	33.5	-	33.5	33.2	33.5	-
Capital Outlay Construction	70.0	-	70.0	69.4	70.0	-
<b>Total</b>	<b>103.5</b>	<b>-</b>	<b>103.5</b>	<b>102.6</b>	<b>103.5</b>	<b>-</b>
<b>Subtotal Capital Outlay Support</b>	<b>1,433.2</b>	<b>-</b>	<b>1,433.2</b>	<b>859.2</b>	<b>1,443.9</b>	<b>10.7</b>
<b>Subtotal Capital Outlay</b>	<b>6,286.7</b>	<b>-</b>	<b>6,286.7</b>	<b>2,966.4</b>	<b>6,211.1</b>	<b>(75.6)</b>
<b>Subtotal Other Budgeted Capital</b>	<b>35.1</b>	<b>-</b>	<b>35.1</b>	<b>-</b>	<b>11.0</b>	<b>(24.1)</b>
<b>Miscellaneous Program Costs</b>	<b>30.0</b>	<b>-</b>	<b>30.0</b>	<b>24.5</b>	<b>30.0</b>	<b>-</b>
<b>Subtotal Toll Bridge Seismic Retrofit Program</b>	<b>7,785.0</b>	<b>-</b>	<b>7,785.0</b>	<b>3,850.1</b>	<b>7,696.0</b>	<b>(89.0)</b>
<b>Program Contingency</b>	<b>900.0</b>	<b>-</b>	<b>900.0</b>	<b>-</b>	<b>989.0</b>	<b>89.0</b>
<b>Total Toll Bridge Seismic Retrofit Program</b>	<b>8,685.0</b>	<b>-</b>	<b>8,685.0</b>	<b>3,850.1</b>	<b>8,685.0</b>	<b>-</b>

Note: Details may not sum to totals due to rounding effects.

## Appendix C: Toll Bridge Seismic Retrofit Program Summary Schedule



## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>New Benicia-Martinez Bridge Project</b>							
<b>New Bridge</b>	<b>00603_</b>						
Capital Outlay Support		84.9	7.7	92.6	76.2	92.6	-
Capital Outlay Construction				-			-
BATA Funding		661.9	107.3	769.2	658.0	769.2	-
Non-BATA Funding		10.1	-	10.1	13.9	10.1	-
Subtotal		672.0	107.3	779.3	671.9	779.3	-
<b>Total</b>		756.9	115.0	871.9	748.1	871.9	-
<b>I-680/I-780 Interchange Reconstruction</b>							
<b>I-680/I-780 Interchange Reconstruction</b>	<b>00606_</b>						
Capital Outlay Support							
BATA Funding		24.9	4.0	28.9	27.0	28.9	-
Non-BATA Funding		1.4	5.1	6.5	5.4	6.5	-
Subtotal		26.3	9.1	35.4	32.4	35.4	-
Capital Outlay Construction							
BATA Funding		54.7	16.1	70.8	60.6	70.8	-
Non-BATA Funding		21.6	-	21.6	15.4	21.6	-
Subtotal		76.3	16.1	92.4	76.0	92.4	-
<b>Total</b>		102.6	25.2	127.8	108.4	127.8	-
<b>I-680/Marina Vista Interchange Reconstruction</b>							
<b>I-680/Marina Vista Interchange Reconstruction</b>	<b>00605_</b>						
Capital Outlay Support		18.3	1.2	19.5	19.5	19.5	-
Capital Outlay Construction		51.5	8.1	59.6	54.5	59.6	-
<b>Total</b>		69.8	9.3	79.1	74.0	79.1	-
<b>New Toll Plaza and Administration Building</b>							
<b>New Toll Plaza and Administration Building</b>	<b>00604_</b>						
Capital Outlay Support		11.9	3.3	15.2	14.3	15.2	-
Capital Outlay Construction		24.3	2.0	26.3	21.1	26.3	-
<b>Total</b>		36.2	5.3	41.5	35.4	41.5	-
<b>Existing Bridge &amp; Interchange Modifications</b>							
<b>Existing Bridge &amp; Interchange Modifications</b>	<b>0060A_</b>						
Capital Outlay Support		4.3	5.7	10.0	3.7	10.0	-
Capital Outlay Construction		17.2	10.9	28.1	-	28.1	-
<b>Total</b>		21.5	16.6	38.1	3.7	38.1	-
<b>Other Contracts</b>							
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		11.4	(2.3)	9.1	6.2	9.1	-
Capital Outlay Construction		20.3	(1.3)	19.0	15.1	19.0	-
Capital Outlay Right-of-Way		20.4	(0.1)	20.3	12.2	20.3	-
<b>Total</b>		52.1	(3.7)	48.4	33.5	48.4	-
<b>Subtotal BATA Capital Outlay Support</b>		155.7	19.7	175.3	146.9	175.3	-
<b>Subtotal BATA Capital Outlay Construction</b>		829.9	143.1	973.0	809.3	973.0	-
<b>Subtotal Capital Outlay Right-of-Way</b>		20.4	(0.1)	20.3	12.2	20.3	-
<b>Subtotal Non-BATA Capital Outlay Support</b>		1.4	5.1	6.5	5.4	6.5	-
<b>Subtotal Non-BATA Capital Outlay Construction</b>		31.7	-	31.7	29.3	31.7	-
<b>Project Reserves</b>		20.8	35.3	56.2	-	56.2	-
<b>Total New Benicia-Martinez Bridge Project</b>		<b>1,059.9</b>	<b>203.1</b>	<b>1,263.0</b>	<b>1,003.1</b>	<b>1,263.0</b>	<b>-</b>

## Notes:

Includes EA's 00601\_, 00608\_, 00609\_, 0060A\_, 0060C\_, 0060E\_, 0060F\_, 0060G\_, and 0060H\_ and all Project Right-of-Way

Note: Details may not sum to totals due to rounding effects.

## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Carquinez Bridge Replacement Project</b>							
<b>New Bridge</b>	<b>01301_</b>						
Capital Outlay Support		60.5	(0.3)	60.2	60.0	60.2	-
Capital Outlay Construction		253.3	4.0	257.3	253.2	257.3	-
<b>Total</b>		<b>313.8</b>	<b>3.7</b>	<b>317.5</b>	<b>313.2</b>	<b>317.5</b>	<b>-</b>
<b>Crockett Interchange Reconstruction</b>	<b>01305_</b>						
Capital Outlay Support		32.0	(0.1)	31.9	31.9	31.9	-
Capital Outlay Construction		73.9	-	73.9	71.9	73.9	-
<b>Total</b>		<b>105.9</b>	<b>(0.1)</b>	<b>105.8</b>	<b>103.8</b>	<b>105.8</b>	<b>-</b>
<b>Existing 1927 Bridge Demolition</b>	<b>01309_</b>						
Capital Outlay Support		16.1	-	16.1	10.0	16.0	(0.1)
Capital Outlay Construction		35.2	-	35.2	19.1	35.2	-
<b>Total</b>		<b>51.3</b>	<b>-</b>	<b>51.3</b>	<b>29.1</b>	<b>51.2</b>	<b>(0.1)</b>
<b>Other Contracts</b>	<b>See note below</b>						
Capital Outlay Support		15.8	(0.7)	15.1	14.6	15.1	-
Capital Outlay Construction		18.8	(0.7)	18.1	15.3	17.9	(0.2)
Capital Outlay Right-of-Way		10.5	-	10.5	9.9	10.5	-
<b>Total</b>		<b>45.1</b>	<b>(1.4)</b>	<b>43.7</b>	<b>39.8</b>	<b>43.5</b>	<b>(0.2)</b>
<b>Subtotal BATA Capital Outlay Support</b>		<b>124.4</b>	<b>(1.1)</b>	<b>123.3</b>	<b>116.5</b>	<b>123.2</b>	<b>(0.1)</b>
<b>Subtotal BATA Capital Outlay Construction</b>		<b>381.2</b>	<b>3.3</b>	<b>384.5</b>	<b>359.5</b>	<b>384.3</b>	<b>(0.2)</b>
<b>Subtotal Capital Outlay Right-of-Way</b>		<b>10.5</b>	<b>-</b>	<b>10.5</b>	<b>9.9</b>	<b>10.5</b>	<b>-</b>
<b>Project Reserves</b>		<b>12.1</b>	<b>(2.2)</b>	<b>9.9</b>	<b>-</b>	<b>10.2</b>	<b>0.3</b>
<b>Total Carquinez Bridge Replacement Project</b>		<b>528.2</b>	<b>-</b>	<b>528.2</b>	<b>485.9</b>	<b>528.2</b>	<b>-</b>
<b>Notes:</b> Other Contracts includes EA's 01302_, 01303_, 01304_, 01306_, 01307_, 01308_, 0130A_, 0130C_, 0130D_, 0130F_, 0130G_, 0130H_, 0130J_, 00453_, 00493_, 04700_, 00607_, 2A270_, and 29920_ and all Project Right-of-Way							

Note: Details may not sum to totals due to rounding effects.

## Appendix D: Regional Measure 1 Program Cost Detail (\$Millions) (Cont'd.)

Project	EA Number	BATA Budget (07/2005)	Approved Changes	Current Approved Budget (06/2006)	Cost To Date (06/2006)	Cost Forecast (06/2006)	At-Completion Variance
a	b	c	d	e = c + d	f	g	h = g - e
<b>Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation</b>							
	See note <sup>1</sup> below						
Capital Outlay Support							
BATA Funding		2.2	-	2.2	1.4	2.2	-
Non-BATA Funding		8.6	-	8.6	10.4	10.4	1.8
Subtotal		10.8	-	10.8	11.8	12.6	1.8
Capital Outlay Construction							
BATA Funding		40.2	-	40.2	33.5	33.4	(6.8)
Non-BATA Funding		51.1	-	51.1	51.6	51.1	-
Subtotal		91.3	-	91.3	85.1	84.5	(6.8)
Project Reserves		-	-	-	-	-	-
<b>Total</b>		102.1	-	102.1	96.9	97.1	(5.0)
<b>Richmond-San Rafael Bridge Deck Overlay Rehabilitation</b>							
	0415U_						
Capital Outlay Support							
BATA Funding		4.0	0.5	4.5	1.9	4.5	-
Non-BATA Funding		4.0	(4.0)	-	-	-	-
Subtotal		8.0	(3.5)	4.5	1.9	4.5	-
Capital Outlay Construction		16.9	3.6	20.5	-	20.5	-
Project Reserves		0.1	(0.1)	-	-	-	-
<b>Total</b>		25.0	-	25.0	1.9	25.0	-
<b>Richmond Parkway Project (RM 1 Share Only)</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		5.9	-	5.9	3.9	5.9	-
<b>Total</b>		5.9	-	5.9	3.9	5.9	-
<b>San Mateo-Hayward Bridge Widening</b>							
	See note <sup>2</sup> below						
Capital Outlay Support		34.6	(0.2)	34.4	34.1	34.4	-
Capital Outlay Construction		180.2	(1.1)	179.1	174.0	176.2	(2.9)
Capital Outlay Right-of-Way		1.5	-	1.5	0.5	0.6	(0.9)
Project Reserves		1.5	1.3	2.8	-	0.7	(2.1)
<b>Total</b>		217.8	-	217.8	208.6	211.9	(5.9)
<b>I-880/SR-92 Interchange Reconstruction</b>							
	EA's 23317_, 01601_, and 01602_						
Capital Outlay Support		28.8	-	28.8	28.8	51.7	22.9
Capital Outlay Construction							
BATA Funding		85.2	-	85.2	-	112.9	27.7
Non-BATA Funding		9.6	-	9.6	-	9.6	-
Subtotal		94.8	-	94.8	-	122.5	27.7
Capital Outlay Right-of-Way		9.9	-	9.9	7.6	12.4	2.5
Project Reserves		0.3	-	0.3	-	9.7	9.4
<b>Total</b>		133.8	-	133.8	36.4	196.3	62.5
<b>Bayfront Expressway Widening</b>							
	EA's 00487_, 01511_, and 01512_						
Capital Outlay Support		8.6	(0.3)	8.3	8.1	8.3	-
Capital Outlay Construction		26.5	-	26.5	24.8	26.5	-
Capital Outlay Right-of-Way		0.2	-	0.2	0.2	0.2	-
Project Reserves		0.8	0.3	1.1	-	1.1	-
<b>Total</b>		36.1	-	36.1	33.1	36.1	-
<b>US 101/University Avenue Interchange Modification</b>							
	Non-Caltrans						
Capital Outlay Support		-	-	-	-	-	-
Capital Outlay Construction		3.8	-	3.8	3.7	3.8	-
<b>Total</b>		3.8	-	3.8	3.7	3.8	-
<b>Subtotal BATA Capital Outlay Support</b>		358.3	18.6	376.8	337.7	399.6	22.8
<b>Subtotal BATA Capital Outlay Construction</b>		1,569.8	148.9	1,718.7	1,408.7	1,736.5	17.8
<b>Subtotal Capital Outlay Right-of-Way</b>		42.5	(0.1)	42.4	30.4	44.0	1.6
<b>Subtotal Non-BATA Capital Outlay Support</b>		14.0	1.1	15.1	15.8	16.9	1.8
<b>Subtotal Non-BATA Capital Outlay Construction</b>		92.4	-	92.4	80.9	92.4	-
<b>Project Reserves</b>		35.6	34.6	70.3	-	77.9	7.6
<b>Total RM1 Program</b>		2,112.6	203.1	2,315.7	1,873.5	2,367.3	51.6

## Notes:

<sup>1</sup> Richmond-San Rafael Bridge Trestle, Fender, and Deck Joint Rehabilitation Includes Non-TBSRA Expenses for EA 0438U\_ and 04157\_

<sup>2</sup> San Mateo-Hayward Bridge Widening Includes EA's 00305\_, 04501\_, 04502\_, 04503\_, 04504\_, 04505\_, 04506\_, 04507\_, 04508\_, 04509\_, 27740\_, 27790\_, 04860\_

Note: Details may not sum to totals due to rounding effects.

## Appendix E: Regional Measure 1 Program Summary Schedule



## Appendix F: Glossary of Terms

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**AB144/SB 66 BUDGET:** the planned allocation of resources for the Toll Bridge Seismic Retrofit Program, or subordinate projects or contracts, as provided in Assembly Bill 144 and Senate Bill 66, signed into law by Governor Schwarzenegger on July 18, 2005 and September 29, 2005, respectively.

**BATA BUDGET:** the planned allocation of resources for the Regional Measure 1 Program, or subordinate projects or contracts as authorized by the Bay Area Toll Authority as of June 2005.

**APPROVED CHANGES:** for cost, changes to the AB144/SB 66 Budget or BATA Budget as approved by the Bay Area Toll Authority Commission. For schedule, changes to the AB 144/SB 66 Project Complete Baseline approved by the Toll Bridge Program Oversight Committee, or changes to the BATA Project Complete Baseline approved by the Bay Area Toll Authority Commission.

**CURRENT APPROVED BUDGET:** the sum of the AB144/SB66 Budget or BATA Budget and Approved Changes.

**COST TO DATE:** the actual expenditures incurred by the program, project, or contract as of the month and year shown.

**COST FORECAST:** the current forecast of all of the costs that are projected to be expended so as to complete the given scope of the program, project, or contract.

**AT COMPLETION VARIANCE or VARIANCE (cost):** the mathematical difference between the Cost Forecast and the Current Approved Budget.

**AB 144/SB 66 PROJECT COMPLETE BASELINE:** the planned completion date for the Toll Bridge Seismic Retrofit Program or subordinate projects or contracts.

**BATA PROJECT COMPLETE BASELINE:** the planned completion date for the Regional Measure 1 Program or subordinate projects or contracts.

**PROJECT COMPLETE CURRENT APPROVED SCHEDULE:** the sum of the AB144/SB66 Project Complete Baseline or BATA Project Complete Baseline and Approved Changes.

**PROJECT COMPLETE SCHEDULE FORECAST:** the current projected date for the completion of the program, project, or contract.

**SCHEDULE VARIANCE or VARIANCE (schedule):** the mathematical difference expressed in months between the Project Complete Schedule Forecast and the Project Complete Current Approved Schedule.

The following information is provided in accordance with California Government code Section 7550:

This document is one of a series of reports prepared for the Bay Area Toll Authority (BATA)/Metropolitan Transportation Commission (MTC) for the Toll Bridge Seismic Retrofit and Regional Measure 1 Programs. The contract value for the monitoring efforts, technical analysis, and field site works that contribute to these reports, as well as the report preparation and production, is \$1,574,873.

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